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FORTY-SEVENTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION

OF THE

STATE OF MICHIGAN,

WITH

ACCOMPANYING DOCUMENTS,

FOR

THE YEAR 1883.

BY AUTHORITY.

LANSING, MICH.:
W. S. GEORGE & CO., STATE PRINTERS AND BINDERS.
1884.

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DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, December 31, 1883.

To His Excellency, JOSIAH W. BEGOLE,
Governor of the State of Michigan:

SIR,—In compliance with the provisions of law, I have the honor herewith to transmit through you to the Legislature, the annual report of the Superintendent of Public Instruction, together with the accompanying documents, for the year 1883.

Very respectfully,

Your obedient servant,

HERSCHEL R. GASS,
Superintendent of Public Instruction.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION

FOR 1883.

ANNUAL REPORT.

The year now drawn to a close has been one of general prosperity to our Commonwealth. Forest and field, mine and mart, have responded to the touch of industry and yielded their millions of treasure. The resources of the State are rich and varied, and each year brings large additions to her population and a perceptible increase to her material wealth.

While our people have been largely engrossed in business affairs and in the development of our material resources, they have not been negligent as to the interests of the public schools and general culture. The progress of the schools, in most respects, has kept pace with the advancement of our business enterprises. The people of this State have, from the earliest period in her history, placed a high value upon the liberal culture of all classes, and the schools have ever been generously provided for and guarded with a zealous care. Through this high appreciation of culture, and by the wisdom of the early educators, the Michigan school system has gained a reputation of which no citizen of the State has reason to be ashamed.

Our educational system, however, is not without its faults. With all the good features which it possesses it is still imperfect, and while we take delight in noticing the excellencies in our system of public schools, it is the part of wisdom not to close our eyes to its defects. A blind conservatism should not stand in the way of advancement in educational affairs. The wise legislator will seek every means to inform himself upon those provisions of the law which are objectionable or ineffective, and will labor for the enactment of such measures as will render them acceptable and productive of the greatest possible good.

The provisions of law require the Superintendent of Public Instruction to report annually the condition of the schools and educational institutions of the State; to point out the defects in the statutes and the evils resulting therefrom; and to make such suggestions and recommend such legislation as is deemed best for the good of the schools and the cause of public education.

In making this report it has been my purpose to present an impartial statement of facts concerning the schools and the workings of our educational system. I have been at considerable pains to gather information upon the subjects that are discussed, and I have made use of only that which seemed to be reasonably correct. The design has been to present such statistical items in connection with the questions considered, as would lead to a correct understanding of defects in our school system and of the best means to remedy them. To the careful consideration of these facts I invite every person who is interested in the cause of public education.

Township District.

There is no question connected with our public school system that demands more thoughtful consideration than the subject of township organization. The defects of our present system of separate, independent school districts and the advantages to be derived from the township system have frequently been set forth in the reports from this department. Several of my predecessors in office have ably discussed this subject, and have advised the enactment of such laws as would do away with the independent existence of several thousand districts and would lead to the adoption of the township as the unit for organization and management of schools.

In the legislature of 1861 a bill was introduced which had for its object the amending of the school laws in such a way as to allow each town to adopt the township system.

It is reported that the measure had many earnest supporters in both branches of the legislature, and that its popularity gave promise of its becoming a law; but, for the want of time and the pressure of other legislation, it was passed as a part of the unfinished business of the session.

I desire again to call attention to this important and perplexing subject; and I trust that the statements that are made and the facts that are presented will receive the careful, candid attention of all who are interested in the welfare and advancement of the common schools.

The first point to which I desire to call attention is, that under the present law school districts are too readily united or divided, and boundaries are too easily changed. There is now no uniformity or stability in the number, shape, or size of the school districts of a township.

The mutability of human affairs and the selfishness of human nature in some of these alterations are forcibly exemplified. The changes that are made in the limits of school districts under the present method of organization and support of schools, are not always to the advantage of the district or in the interest of the children who attend school. It is not an uncommon thing for a tax-payer to have his property set off from one district and attached to another simply to avoid the payment of a few dollars' indebtedness which the former had contracted, or to relieve himself from bearing a portion of the tax to be assessed for the prospective building of a school-house. The facility with which these changes are made and the failure to observe or understand the laws in regard to them, lead to difficulties which result in litigation, to the detriment of the cause of education.

Were it understood that a civil township and a rural school district coincide, all trouble of this character would be avoided, and this Department would be relieved from a heavy correspondence, which is constantly on the increase.

All school legislation should be enacted upon the broad principle of securing "the greatest good to the greatest number," and, as far as possible, of extending equal educational privileges to all. These things are not fully realized under our present system of districting; nor will they be, so long as local influence and prejudice are kept in such close relations to the support of the public schools. I do not wish to be understood as saying that the public support of the schools has not been generous and freely given. Far from it. But I desire to call attention to the fact that a large portion of the public school fund is raised by a tax self-imposed upon these independent districts; and that this is the chief cause of the unequal educational privileges that exist in almost every township.

It is frequently the case that a child must go two or three miles to attend school in his own district, in which the school-house is not centrally located, when he might attend in a neighboring district within half that distance, did not our present system give school boards the authority to exclude non-resident pupils. Distance is not the only difficult factor.

Under our law the liberality and ability of district No. 1 enables them to build a comfortable, commodious school-house, and to have a school taught eight or ten months in the year by an experienced, well-qualified teacher. District No. 2, not so able and liberal, nor so appreciative of educational advantages as its neighbor, provides a small uncomfortable building, and employs a cheap novice to "keep" the school the minimum number of months to entitle it to its portion of the general school fund. There is no reason why A's children, who are so unfortunate as to live in No. 2, should be deprived of the school privileges enjoyed by B's who live in No. 1, except that the school system of Michigan makes it so.

Under the proposed plan, with an impartial, efficient board of education to take charge of all the schools in the township, the districts would be arranged and school sites would be located with a view to affording the best advantages possible to those attending school. Such a board would be uninfluenced by the local prejudices that are so frequently manifested in the management of the district schools. They would have control of *all* the schools in their jurisdiction and would be responsible for their success or failure. The burden of school tax would be equitably distributed throughout the township, and each district would receive more nearly an equal portion of all the pupils enrolled.

Better houses would be erected, and a more competent class of teachers would be employed, since no local penny policy would dictate in these matters. This does not imply an extravagant expenditure of school moneys, or even an *increase* in the cost of the schools. In fact, I think it can be shown that this plan would be the most economical. As evidence of this I would call attention to the following facts: In Oakland county, in the year 1882–3, were taught fourteen schools, in which the number of pupils enrolled ranged from four to twelve. The whole number of resident pupils attending these schools was one hundred and six. An average of six months school was taught in each district during the year at a cost of $16.50 per month. Each school averaged 7.5 scholars, and it cost $2.10 a month to instruct each pupil, or at the rate of $21 per year. Twenty-one different teachers were employed in these fourteen schools during this period, and the average length of time each taught was four months. The smallest number enrolled in any of these schools was four; three of these four were non-resident pupils, and for instructing one scholar three months it cost the district $60.

In the same county there were thirty-three schools that enrolled from twelve to twenty scholars each. There was an average of 16.6 pupils in each school. Fifty-two teachers were employed in these schools, and an average of five months were taught by each.

In Washtenaw county six schools were taught, with an average attendance of 9.6 pupils. The average cost per month for teaching each pupil was $2.00. Twelve teachers were employed, and they taught an average of 3.6 months each.

No account has been taken of the incidental expenses incurred in these schools. The cost of instruction alone is nearly twice as much per pupil as it averages in all the graded schools of the State, including high school instruction. This condition of things is not peculiar to the counties mentioned. A

similar showing could be made from nearly every county in the State. This exhibit indicates that our district system is not the most economical in the employment of time, the expenditure of labor, or the disbursement of money.

Massachusetts organized and managed her schools for many years under the district system, but since 1869 the schools of that State, with the exception of a very few, have been working on the township plan. The Secretary of the State Board of Education, in his report for 1878–79, says: "The town system supplies one part of the town with as good school-houses as are possessed by another part. It reduces the number of schools, so that the remainder can be continued for a proper time, and supplied with competent teachers, and that waste of money and labor caused by employing a teacher for one pupil or even ten pupils is easily saved. There appears to be no sufficient reason for a longer continuance of the district system in the State. It opposes the improvement of our schools while it increases the expense of their support. As a fact, the schools in towns where the district system still holds are, on the whole, inferior in quality, if not in quantity." The district system was left optional with the township until Jan. 1, 1883, when it was entirely abolished.

The Board of Education, in their report for 1881–82, say: "Wherever, during the last thirty years, the districts have been abolished, it has been found that fewer school-houses, in proportion to the population, are needed; a better classification of pupils is secured; and a more even distribution of good school accomodations and well qualified teachers is given to the towns. A more just expenditure of money, and a more economical administration of the schools in every way, have been the invariable results of the town instead of the district system. By the abolition of the district system the small towns and the small districts with few pupils have always received the greatest benefit."

The Secretary of the Board, in his analysis of the returns made to him, says: "The district system, the old district system as it is commonly called, was about sixty years old. During the years of its duration, experience had proved the system to be productive of much evil and but little good. Under its influences many of the school-houses of the towns were poor, the schools taught in them were small, and, of necessity, were short and provided with poor teachers."

These are the words of men occupying high official positions, and they come from a State that is the home of the American free school system. Upon such testimony it is safe to formulate a judgment or to render a verdict.

The ordinary school district meeting and the transactions of district boards are fruitful sources of frequent broils and contentions. Many districts to-day are having their schools taught in houses that are a discredit to civilized communities. A proposition to build a school-house in a country district is frequently the occasion of many a serious controversy. For some it is too costly, for others too cheap; it is too near this man, or too far from that one; to please this tax payer it should be made of brick, to please that one it should be made of wood. Thus the contest goes on and no school-house is built, for the reason that the necessary two-thirds of the tax payers can not agree to the same thing.

In some districts the residents are nearly all tenants and non-tax-payers, and, though they have a large number of children, no school is provided for them. They receive no benefit from the general school fund that is justly due them, since no school-house is provided, and the required amount of school is not taught to entitle them to the public aid.

Again, it is usually the case that but very little interest is taken in the school-district meeting, unless some special appropriation measure is to be considered. But a small portion of the voters attend these meetings, and often persons are elected to the district offices that have little or no interest in the welfare of the schools. With such officers to manage the affairs of the district, it too frequently happens that the schools are supplied with incompetent teachers; or, through favoritism, they are held as gratuities for a sister, cousin, uncle, or aunt.

Many other instances might be cited where neighborhood quarrels have been engendered and perpetuated under the school-district laws of this State, and where the schools have been closed or rendered worthless through the malevolence of one or two individuals. Be it sufficient to say that this Department, in the year 1883, sent out about one thousand letters containing advice and opinions pertaining to the primary school laws. A larger part of this correspondence was called for to settle difficulties in the rural districts where there was a failure to understand the laws, or a disposition to pervert and disobey them.

The present laws of this State require an army of over twenty-four thousand school officers to look after her educational interests. Could our schools be placed in charge of one-sixth this number of officials, there is every reason to believe that the public school system would be greatly improved. The collection, by this Department, of valuable information in regard to the rural schools is rendered almost impossible, when it is to be gathered from so many independent sources. The failuré to report properly the few facts that are now called for, loses to a number of school districts each year their portion of the general school funds. Under the township system it is believed that a better class of officers would be chosen to take charge of school affairs. Persons would more generally be selected with a reference to their fitness for the positions. Officers thus elected would keenly feel the responsibilities placed upon them, would thoroughly inform themselves in regard to the law, and would wisely comply with its provisions.

A strong evidence of the inefficiency of the district system is the complaints that are brought against it by district officers themselves. In this age of place-hunters, when persons holding official positions under the law, express a general dissatisfaction with its workings, and recommend changes that will do away with the offices which they hold, they deserve the credit of honesty in their convictions, and their opinions should go unchallenged. No such general dissatisfaction is expressed in regard to the township system. Wherever it has been tried the results have been gratifying. Educators in nearly every state of the Union have advised the adoption of this plan, and many of the leading states, having abolished the old school district, to-day are managing their schools, wholly or partially, under laws which make the civil township the school district unit.

"Observations both abroad and at the Centennial," says Secretary Northrop, in the Connecticut report, for 1877, "confirm my convictions in favor of the union of districts. All the countries making an educational exhibit at Philadelphia have the union plan.

"The division of towns into small, independent districts, seems inexplicible to educators abroad. It was a relief to be able to say to them that the country as a whole, had abandoned the district system, and that in the few states where it still survives, its main props are prejudice, and so-called conservatism, and that these are manifestly decaying."

In the Wisconsin report for 1879, Superintendent Whitford says: "Where the town system prevails, there is no desire, on the part of the enlightened friends of education, for something different; but where the system of independent districts still prevails, there is general dissatisfaction among such persons, and pages could easily be filled with statements illustrating the defects of the system."

It is not claimed that *all* the obstacles which we encounter under our present system will disappear upon the adoption of the township district; but it seems to be evident that, with the civil township as the unit for organizing and managing the public schools, the greatest number of difficulties that can arise will not exceed the least number experienced under the small, independent district plan.

I would not advise hasty, random legislation in this matter, but I believe the time has come for action upon this important subject; and I trust that what has been said will be fruitful in bringing out an agitation of this question by our educators, and that legislators may be led to eliminate, in the near future, the independent, country district, from our school system.

Following are some of the benefits that would be derived from such legislation:

1. The organization of districts would be simplified and more easily accomplished.
2. The erection of better and more commodious school-houses.
3. Classifying and grading would be facilitated.
4. Better teachers would be more permanently employed.
5. The burden of taxation would be equalized among larger communities.
6. The public school funds would be more equitably distributed.
7. Equal educational privileges would be extended to all parts of the township.
8. Children could attend the school that was most convenient.
9. School-houses would be furnished with better means of instruction.
10. The aggregate cost of education would be diminished.
11. Fewer difficulties would arise in regard to district boundaries, which would be more permanently fixed.
12. *Nepotism* in the selection of teachers would not exist so extensively as it does now.
13. School-house sites would be better and more conveniently located.
14. The number of school officers and elections would be largely reduced.
15. Less difficulty would be experienced in securing reliable statistics and information in regard to school work.
16. Schools would not so frequently fail to receive their portion of the public school funds.
17. There would be better management and supervision of the schools.
18. Text-books could not be so easily changed.
19. The school laws would be simplified, and better understood and obeyed.

TEXT-BOOKS.

Uniformity.

The evils arising from the variety of text-books used in the ungraded schools, and from the frequent changes that are made, are admitted and deplored by all. Severe and numerous complaints come from parents who have children in school, on account of the heavy expense incurred by this diversity and frequent change of books. It is no doubt true that there are persons in nearly

every school district who would find fault with the most conservative policy pursued in the management of the public schools. It is equally true that there is just cause for much of the dissatisfaction expressed upon the text-book question in this State.

The patrons of the schools are not the only fault-finders. School officers and teachers encounter the difficulties and feel the burdens arising from this text-book medley and versatility quite as forcibly as those who are loud in their complaints when called upon to purchase new books for their children.

Under our present method of determining the text-books to be used, the country schools fail to furnish the educational advantages which they might supply with a strict uniformity of books, the necessity of buying new ones keeping many children from availing themselves of the meagre privileges which are now afforded them. At the beginning of each term the organization of the school and the classifying of the pupils is delayed days, and sometimes even weeks, by the multiplicity of books upon the same subject, or from the failure of pupils to provide themselves with those required. One of the most perplexing questions with which the teacher has to deal at the opening of school is that of arranging his classes so as to allow pupils to pursue their studies in every antiquated school book which they choose to bring. This new teachers are generally inclined to do, and it is too frequently the case that older ones will allow pupils unlimited freedom in the selection of books rather than incur any friction in managing the school.

Teachers are not the only ones to blame, however, for this condition of things. Parents and pupils both come in for their share of the responsibility. The child is often sent to school with the paternal injunction that the book from which his father gained his mathematical knowledge must be the arithmetic for him. The command is carried to the teacher, he submits, and another class is formed in arithmetic.

There are laws upon our statute books which were designed to secure uniformity, and to regulate the adoption of school-books, but they do not regulate. It is left with each district board to determine what books shall be used in the school, but I think it is safe to venture the opinion that not one-third of the rural schools in the State are using adopted lists of books. The law seems to be weak and ineffective. It does not compel the adoption of books, as an examination of the directors' reports in this office will show; nor does it enforce their use and retention when adopted, as is fully verified by the experience of country teachers and the untiring activity of an army of book-agents.

A few publishing houses, by placing agents in the field and securing the adoption of full sets of school-books, have done *something* towards bringing about uniformity in a portion of the schools; but these adoptions, in many cases, have been neither wise nor permanent. Other agents, working through the same districts, have been equally as successful as those before them, in displacing the books that were but recently adopted, and securing the adoption of their own.

One trouble right here is that country school-boards, as a rule, are not qualified for this kind of work, and they are too easily manipulated by book-agents. These boards are usually composed of persons who have given little attention to school affairs, and who have little or no familiarity with the text-books in general use. The law provides that the district board shall prescribe the books to be used in the school, but it does not require them to secure the approval or even to ask the advice of persons competent to judge of the merits or

demerits of school-books, as a pre-requisite to their being adopted by the board.

In the selection and change of books, the board is unrestricted in its action, with the single exception that it requires a two-thirds majority of the votes cast at an annual meeting to change a book within five years after its adoption. Evidence shows that but very little attention is paid to this provision of the law. These boards, composed of only three members, and generally unacquainted with the best books, readily yield to the importunities of book-agents, or the individual preferences of some teacher, in the selections which they make. In these changes the school boards are frequently deceived and imposed upon by agents, and *sometimes* by teachers.

Here is one of the plans pursued: The agent "works" the district quietly, after the style of a "still hunt;" in this way he avoids the open competition of other houses, and usually finds an open field and an easy victory. He urges the importance of uniformity, and shows how it can be secured by adopting a full list of books which he has. Upon this list are books that are comparatively worthless and out of date, but a few good ones, well recommended, win the adoption of others that should never find their way into the schools. The *worthless* books, also, aid in securing the approval of the list, since they can be afforded at a very low figure the average price of each book in the set is brought below the figure at which such books are usually sold. This is presented by the agent as another point in favor of his books, and with most boards it is an effective argument. In time, however, the imposition is discovered, and the next agent that comes into the district finds but little difficulty in displacing these books, regardless of the law, and securing the adoption of his own.

It is through such practices as these that many of the frequent and unnecessary changes of text-books are made in the country districts. The fault is not so much that of the members composing the boards as it is that of the law, which surrounds their action in the matter of text-books with so few safeguards and places the sole power of determining this question in the hands of such boards.

The *price* of school books is another thing that may be regulated, to some extent, by uniformity laws that are wisely framed and properly executed.

It is true that text-books to-day are better made and sold at lower prices than they were a few years ago, but this does not prove that they are furnished at as low figures as the publishing houses could afford them. In fact it is shown that school-books are sold under the laws of some states at much lower prices than they are in Michigan, which may be seen from quotations given below.

Laws designed to regulate the use of text-books in the schools, have been enacted in nearly every state. These laws have provided for either state, county, township, or district uniformity. At the last session of the legislature two or three bills were introduced, providing for state uniformity. The measures had but few advocates, and when the House bill upon this subject was brought to a vote, only five or six names were recorded in its favor. It failed because legislators could see in it no relief from the difficulties experienced under our present system, and the probability of opening a Pandora's box of greater and more numerous evils than now exist. Had a bill been introduced, providing for a well-regulated county or township uniformity, I am confident that it would have become a law.

Where state uniformity has been tried it has soon become unpopular. To

place in the hands of a single person or a single board, the power to determine the text-books to be used in an entire State for a series of years, is to subject that person or board to most dangerous influences, and to charges of the basest corruption. No person or set of persons can understand the needs of every district in the State; and, were they able to determine the wants of every school, the selection of a single set of text-books would not meet the requirements of so many different communities. The failure of such legislation to secure books suitable to all parts of the State, and to bring all the benefits which its advocates promised, results in general dissatisfaction with the law; and those who have charge of the selection of books are put down as incompetent to make a wise choice, or are accused of "selling out" to the publishing houses.

The popular discontent with state unifomity, and the futility of all such legislation, can be seen by consulting the educational reports from those States that have tried this plan of solving the text-book question.

In writing upon this subject, in his report for 1882, Hon. B. G. Northrop, Secretary of the State Board of Education of Connecticut, says: "In theory the remedy seems sure, but in practice it always fails. The lessons of experience are decisive upon this point. The States which have tried this sovereign remedy of enforced uniformity have found it worse than the disease. Wherever such a law has been fairly tried, it has soon been repealed. Vermont, for example, will not be likely to try again the experiment, which, however profitable to certain publishers, proved costly to the State, and prolific of litigation and alienation."

In California the State Board of Education, from 1870 to 1879, selected the books to be used in the public schools. The law became unpopular, and was repealed in 1879, and a law for county uniformity was enacted. The State Superintendent of Public Instruction, in his report for 1880, writes: "The adoption of text-books is one of the most troublesome points of school administration, and, in this State, under the law of state uniformity, it had become fruitful of complaints and scandals."

In 1872 the Wisconsin State Teachers' Association appointed a committee to consider the feasibility of uniform lists of text-books for the schools of the State. "The committee corresponded," says the State Superintendent of Minnesota, "with the State Superintendents and leading educators of the whole country, and after thoroughly investigating the whole subject, at the late annual session, held at Sparta in July last, the committee unanimously reported against a state uniformity."

A joint committee, appointed by the State legislature of Connecticut to inquire into the expediency of a state uniformity of school books, reported to that body that "we are of the opinion that on very many accounts it is desirable that there should be one and the same books used in all the schools of the State." After giving a number of reasons that make state uniformity desirable, they further say: "On the other hand, your committee find great difficulties in establishing and maintaining such a uniformity of books; and some objections to having such a uniformity, if it could be brought about and retained."

Then follow the difficulties and objections to such a law. To close their report they say: "In view of all the reasons mentioned in this report, your committee are of the opinion that it would not be expedient to direct, or to order any board to direct, what school books shall be used in all the schools of the State."

Hon. D. Burt, State Superintendent of Minnesota, says of the operation of the state uniformity law in that State, in his report for 1879–80: "It is enough to say that the law for the past two years has made school books dearer rather than cheaper, and we can never realize any better results under the law."

In the Illinois report for 1881–82 we find the following statements from the Hon. Henry Raab, State Superintendent of Public Instruction: "I know that state uniformity seems, at first sight, to be a very simple and easy way to remove the popular discontent produced by the lack of economy and system in the supply and use of text-books, but I find, after making a complete examination of the results of experiments in enforced uniformity of text-books in other States, that there are many serious objections to the plan, among which may be mentioned the following:

1. It is difficult if not impossible to enforce such a law because of the feeling that it is 'arbitrary, un-democratic, un-American, unnecessary, impertinent.'
2. It fails to recognize and supply all the varied needs of our complex school system.
3. It prevents the free competition that stimulates the production and promotes the selection of the best books.
4. It is liable to abuse, on account of the magnitude of the pecuniary interests involved.
5. It is not the *only* way to secure cheap books.
6. It has been frequently tried in other States and has uniformly failed, whether the books have been manufactured, purchased, or selected, by state authority.
7. The most competent educational authorities in this country who have expressed themselves upon this subject are opposed to state uniformity."

An unlimited amount of testimony against state uniformity might be produced, fully as decided and damaging as the foregoing, but it would seem that sufficient evidence had been presented upon this subject to convince every unbiased, well-informed person that state regulation of the text-book question is costly, impractical, unsatisfactory, unwise.

Eight states have laws providing for county uniformity. This plan has fewer objections than that of state uniformity. The county being smaller, and the requirements less varied than those of a whole state, adoptions can be made that more readily meet the wants and approbation of different localities.

Again, each county being allowed to select its own books, there are as many fields for free competition as there are counties in the State. The numerous rivalries that arise between the publishing houses under this system lead them to make better books and to place them in the market at reduced prices.

But this plan of adopting text-books is not without its faults. Some of the difficulties encountered in providing books for a State are also met with in providing them for a county. The field is still so large that a single set of books can not be selected which will be suitable to all parts of so large a territory; and persons empowered to make the adoptions are frequently charged with being in league with book-agents and receiving money for their votes.

While the county seems to be too large for the successful operation of a uniformity law, the country school district proves to be too small, unless free text-books are provided by the district. They are too readily manipulated by importunate book-agents. The difficulties and dissatisfaction arising under our present method of adopting books have been previously noticed; and I am of the opinion that a county uniformity-law, fairly enforced, would be product-

ive of fewer evil results than are experienced under our present system of adopting separate lists of books for each independent school-district.

The township seems to be the most suitable unit for regulating the adoption and use of text-books, as well as for managing many other affairs connected with the country schools. Every uniformity law, whether it be state, county, township, or district, will be likely to have its defects and to meet with some disfavor. In consideration of the abuses that have been practised under laws providing for state, or county uniformity, in view of the inefficiency and unpopularity of these laws, and knowing that our own statutes, providing for district adoption, are generally disregarded and worthless, I have come to the conclusion, after consulting reports upon this subject from many states, that the township plan is the most feasible and most productive of good results.

Free Text-Books.

I wish here to call attention to another factor in this question, and one upon which the ready solution of the text-book problem depends. I refer to the furnishing of text-books free to the children in the public schools. I am aware that such a proposition will readily find its opponents, but there are considerations which strongly favor such a measure, and to which I invite careful thought. Districts now furnish dictionaries, globes, maps, charts, crayons, erasers, and many other appliances for the use of the school. If there are reasons why they should furnish these necessary articles there are equally as good reasons why they should provide text-books. A pupil studies arithmetic; he learns his lesson in a book which belongs to himself, but a large portion of the work in this subject he performs upon the black-board belonging to the school, with district crayon and eraser. It is difficult to understand why public generosity should refuse the pupil an arithmetic, when it has provided him every other means for pursuing the study of mathematics. If public munificence is to be withheld from the pupil in any respect, why not require him to bring his own eraser, crayon, and black-board? There is no particular necessity for a uniformity in these articles, while there is a crying demand for uniformity of arithmetics and other text-books. The district builds a school-house and furnishes it with uniform seats, because it wishes to economize space and utilize all the room possible. Why should it not, upon the same grounds, furnish a uniform set of books, and, by avoiding an endless jumble of classes, economize the time of pupils and teacher?

Our schools are called *free* schools. Let them be free, then, in that broad sense which will allow every child to enjoy their privileges, untrammeled by any consideration of private expense for school appliances.

I know that such a law would be objected to upon the plea that it would increase the amount of school tax to be raised. This might be true in a *few* cases, but to the average tax-payer who sends his children to school and to those who pay no taxes, it would be a saving. For instance, a country school of forty scholars is taught seven months in the year. The amount of money required to run the school is $200; and the cost of furnishing the pupils with free text-books, as shown below in similar expense-reports from other States, will range from $10 to $20. Now, a person who pays one-tenth of the school tax, will contribute from $1 to $2 for the purchase of free school books. Men who are assessed one-tenth of the school-tax in rural districts are very few, and it is safe to say that the average tax-payer, in the case referred to, would not give to exceed seventy-five cents for supplying the schools with free text-books for a year.

General laws are enacted for the benefit of the masses. Any legislation, providing for free school books, will annually save large aggregate amounts to the country districts; and, though it should increase the school expenses of a *few*, it would be justified upon the principle of doing the greatest good to the greatest number. Under the present plan of providing text-books, it costs fully $2 a year for books for each pupil. By the method of free text-books, it is shown by the reports from the States referred to below, that the average annual expense per pupil for books would be about fifty cents. The latter plan, then, would make an annual saving of $1.50 for each pupil. Now, there were enrolled in the schools of this State during the last school year, 391,610 pupils. A saving of $1.50 for each pupil would annually amount to $587,415. In a decade the amount saved to the patrons of the schools would be $5,874,150. This is a loss to the masses which is worthy the consideration of every philanthropist and which should be prevented by suitable legislation.

It is claimed by some that pupils would not take the same care of books belonging to the district that they would of those belonging to themselves, and that the books would sooner be worn out or destroyed. In those schools that have tried the experiment of free text-books it is shown that, with proper regulations, they are better cared for and last much longer than when owned by the pupils themselves. Moreover, under this plan books are made to do greater service than they are when furnished by the pupils. Belonging to the school, they will be used by succeeding classes until worn out. Belonging to the pupils, they are often laid aside nearly as good as new. The child outgrows his books in a term or two, and unless there is a younger brother or sister to inherit them they find their way into the garret as useless property.

Below are given some of the opinions of leading educators upon this subject.

In his report for 1877, Hon. Edward Searing, State Superintendent of Wisconsin, says: "After a careful and impartial study of the text-book question during the past four years, I have the fullest conviction that the plan of free text-books combines more practical and substantial advantages, from both the economical and pedagogical stand-point, than any other solution yet offered."

The State Superintendent of California, in his report for 1874–5, writes: "In eighteen hundred and seventy-three (fifth year) Bath (Me.) had a school attendance of two thousand nine hundred and forty, making the city's expenditure for text-books a very little over fifty cents per child! In California, at least three dollars per child are annually spent for text-books."

At the California State Teachers' Association in 1882, the question of text-books came up for discussion. As there seemed to be a lack of information upon this subject, especially concerning free text-books and text-books supplied at cost, the whole matter was deferred; and C. B. Towle, of Vallejo, was appointed a committee of one to obtain information upon the subject and report at the next meeting. Mr. Towle corresponded directly with the school officers of different towns, cities, and States. The numerous replies which he received came from thirty-five States, and they gave information concerning uniformity laws, free text-books and text-books at cost. In his report to the meeting of the association in Dec., 1883, he embodies this correspondence, from which the following opinions of school officers and educators upon the subject of free text-books are taken:

Maine.—The following extracts are taken from a report by Samuel Libbey, of the School Committee of Orono, found in the state report for 1880: "During the year 1879, the amount expended for all the books for all the scholars was only $140.29, and yet every scholar attending school was supplied with all the

books he needed or could use, and the number of different scholars registered was 527. The cost to the town for each scholar was only 26¾ cents for the year. What have we gained by the adoption of this system? I answer, uniformity of text-books, a satisfactory classification in all our schools, an adequate supply of all the books needed, increased attendance upon our schools, and large savings in the cost of books. We have found it the most convenient method; and transfers and exchanges of books are much more easily effected." This system was adopted in Orono in 1876.

Vermont.—N. W. White, Town Superintendent of Hartford, writes: "The plan of furnishing books to pupils works well with us thus far. It secures a uniformity of books. The poorest pupils are all as well supplied as the richer. Teachers like to teach in our town, because the schools are well supplied with books. We are near the close of the fifth year since adopting this plan. We at first made an appropriation of $600 for the purchase of books, and $100 annually to keep up the supply. We have about 500 pupils, so that the cost per pupil has been a fraction over $2 for the five years. The books now on hand are worth at least $300; this would reduce the actual cost to $1.60 per pupil for the five years. We buy books at the publishers' lowest wholesale price. To prevent loss or abuse, we hold teachers responsible as far as possible, as we do to take proper care of other school property. The books are all labeled with the rules, and numbered. Each teacher has a book in which to keep an account with each pupil, somewhat after the manner of a public library. With good teachers the books are well taken care of; with poor teachers the books get more or less abused, and worn out faster than they ought to, just as other school property will get abused unless there is sufficient discipline. I have never heard any complaint from tax-payers upon this point, more than upon other school expenses. I am not aware of any disadvantages worth mentioning arising from this system of furnishing books. In regard to how much less it costs, my judgment is that it would cost double or more for the pupil to buy his own books. My own individual opinion is most decidedly in favor of the plan."

Massachusetts.—As to free text-books, the law reads: "A city by ordinance, and a town by vote, may authorize its school committee to purchase text-books and stationery for use in the public schools, such text-books to be the property of the city or town, and to be lent to pupils under such regulations as the school committee may make." The explanation following this law is: "The exercise of the power granted by this section makes the public schools wholly free. Wherever the plan has been adopted of furnishing school supplies by the town, it has been found to save two-fifths of the expense; to make a great saving of time in organizing the schools at the beginning of the term; to prevent the wasteful and demoralizing use of books; to greatly increase the amount of work accomplished by the pupils, and to increase the attendance from three to seven per cent. The plan is held in great favor wherever it has been tried."

In 1881, Superintendent Connell of Fall River, writing upon the free text-book plan, says:

Books and stationery are purchased at wholesale rates, on the best terms known to the trade. During the seven years the enrollment has increased but 301, while the average attendance has gained 1,340. In other words, the enrollment has increased, in the seven years, but two per cent, while the average attendance has gained twenty-seven per cent. The result is due almost entirely to free text-books.

In a letter of October 1, 1883, Superintendent Connell writes: "We believe in the system here most heartily, and it gives very excellent satisfaction to all parties concerned."

Wisconsin.—The Wisconsin school report states that in 1879 the number of districts purchasing text-books was 1,104, of which 427 loaned and 677 sold them to pupils; and in 1882 the number of districts purchasing was 1,795, of which 574 loaned and 1,221 sold them to pupils.

The same laws are also in force for cities and towns, except that the Board of Education of the city or town may be authorized by the board of aldermen, common council, or trustees, to purchase text-books, and loan them to the pupils.

Superintendent Albert Hardy of Lacrosse, writing about free text-books, says: "The School Board of Lacrosse, after careful inquiry and mature deliberation, unanimously adopted the plan a year ago last July. The same month I presented the matter, with the decision of the School Board, before the city council, which unanimously approved the action of the School Board, which action of the council made the matter legal. The amount of $1,500 was appropriated to carry out the scheme. I went to Chicago and purchased the books at very low rates. Last year we spent about $1,000, and this year, so far, $600. The text-books proper cost about 34 cents per pupil last year, and 23 cents per pupil this year. There is no open opposition to the plan. As to method of management, the teachers are all furnished with ruled blank books, containing a column for names of pupils, number of the book, kind of book, and condition of the book, which is kept by a letter, as A for 'new,' B for 'used, but good,' etc. The teachers enter the names of all their pupils in these books, with the number, kind, and condition of the book. The numbers are checked off when the book is returned, with date, and amount of fine, if any, under column 'remarks.' The pupils are thus held for the books at last, and charged with the cost if the book is lost, and required to pay a fine if the book is injured more than is necessary. I collected about $200 for injuries last year. There was no trouble in collecting; I did not lose $2.00. I should say that the high school is included in the above estimate; Greek, Latin, all books.

These are some of the advantages:

First—Economy; it does not cost this community one-third of the former cost for books.

Second—The pupils are on hand promptly at the beginning of the term, and do not have to wait to get books; that is, it increases the regularity of attendance.

Third—It increases the attendance in higher grades; more children get a better education.

Fourth—It makes the schools free indeed; puts the poor man's child on an equality with the rich man's child—all are supplied alike.

Fifth—It is an educational force; it teaches the responsibility and the care of property.

The greatest disadvantage about it, is the increased labor and responsibility of the teacher."

Michigan.—Superintendent J. M. B. Sill, of Detroit, writes: "We have no peculiar way of furnishing our pupils with text-books. Competition among book-sellers has, however, done us good service, and school books generally are sold to pupils at wholesale rates. I am an advocate of free text-books in free schools; but with us here it will probably be long before the public will agree with me."

New York.—Superintendent John Jasper, of New York city, writes: "The Board of Education furnishes all pupils in the public schools with books and school supplies free of expense; and this meets the hearty approval of the citizens of New York city."

New Jersey.—Superintendent Henry B. Pierce, of New Brunswick, N. J., writes: "For the past eighteen years our readers have not cost on an average more than ten cents per year per pupil. Sanders' series were used fourteen years, when they were exchanged free of cost for Appleton's new series. The A class of girls in the grammar department used Sanders' Fourth Readers fourteen years; that is, more than 600 different girls used the same forty-five reading books. The original cost to the Board was less than $45, while the retail price during that time was $1.25 per book. The advantages of furnishing reading books to the pupils by the Board are many."

Superintendent Wm. N. Barringer, of Newark, writes: "We have furnished our pupils with books, slate pencils, chalk, etc., etc., for many years. It has cost on an average about 45 cents per pupil per annum. We like the plan very much; its advantages are many—I will name a few: cheapness, convenience, uniformity, complete control of the course of study, and removal of all excuses for non-performance of work by pupils."

Superintendent Geo. H. Barton, of Jersey City, writes: "For many years free text-books have been furnished to the children in the public schools of this city. The plan has proven very satisfactory. Books misused or abused have been paid for by the children having them. Parents are also obliged to pay for the books lost by their children. The cost per pupil has varied from 50 cents to $1.25 per year for books and stationery."

State Superintendent E. A. Apgar writes: "Nearly all our cities furnish text-books free of cost to the children; among them are Newark, 130,000 population; Jersey City, 125,000; Paterson, 50,000; New Brunswick, 20,000; etc. We have 1,500 school districts in the State outside the cities, and about 400 of these supply free text-books. It is my endeavor to get all the districts in the State to adopt the policy which now prevails in so many. In my reports and addresses I have always recommended this policy. In advocating this policy I have opposed State, or even county uniformity. Every advantage which uniformity offers, is secured, from the fact that the pupil in removing to a new district is not required to buy new books; and all the evils growing out of a State or county adoption, which are many, are avoided."

In concluding his report, Mr. Towle makes the following statement: "This ends my report, which shows the management of text-books in all the states of the Union except Louisiana. Two letters to that state failed to return the necessary information. It is perhaps hardly necessary to say that the more this subject is studied, the more positive one becomes that, all things being considered, the end of the text-book question will not be reached until, everywhere, books are supplied free of cost to the pupils, being obtained by each city, town, or district, direct from the publishers, at such rates as will be fair to all concerned; that text-books, in order to have them cheapest and best, must be the joint product of private enterprise and general competition."

I have taken some pains to inform myself upon the text-book question, and have endeavored to make an unbiased presentation of testimony, so that those who frame our laws may have before them the experience and opinions of educators in other states, in case of legislation upon the uniformity of text-books.

Upon first considering this subject, I was inclined to favor the plan of county uniformity as the most practical, efficient, and satisfactory. An examination, however, of the reports upon this question from those states where the county system has been tried, has revealed many objections to this plan. Though it is preferable to state uniformity, and would be an improvement upon our present system, I am convinced that the township is the proper unit for regulating text-book uniformity as well as for managing most of the affairs connected with the rural schools. I would also add, that the only complete remedy for the evils that will grow out of any system of uniformity, be it state, county, township, or district, lies in providing free text-books for the schools.

After carefully considering this text-book question I am convinced that the district should purchase all the books used in the schools; and that they should be held as district property, and either furnished free for the use of those who attend school, loaned to them at a price that would simply cover wear and tear, or sold to them at actual cost. By this means uniformity will be readily secured, the price of books will be greatly reduced, and many of the obstacles which now decrease the attendance upon the schools and prevent their most successful workings will be removed.

Text-Books in Use.

Following is a tabulated list of the text-books used in the nine counties of the State, named, as taken from reports made to this Department. The number of counties given in the table will serve to give an idea of the diversity of books in use in the same localities, and the desirability of action that will bring about more of uniformity and stability in the use of text-books:

TABLE OF TEXT-BOOKS USED IN THE COUNTIES NAMED, INCLUDING THE FACTS STATED IN THE HEADING.

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Orthography.														
			Names of Authors or Publishers.									No. Townships Using Only—					
			Harrington.	Sanders.	Wight.	McGuffey.	Webster.	Wilson.	Swinton.	Watson.	Unknown.	One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	59	6	4	7	1	2	2	3	51		5	3	5	0	1
Lenawee	22	197	37	10	26	0	1	5	2	0	116	7	8	6	0	0	1
Hillsdale	18	169	5	9	36	0	0	2	0	4	113	2	8	2	2	0	4
Branch	16	128	3	5	23	0	0	11	1	0	85	7	5	2	1	0	1
St. Joseph	16	119	3	22	10	0	1	0	1	6	76	7	6	1	1	0	1
Cass	15	111	27	4	13	0	0	1	0	3	63	2	9	3	1	0	0
Berrien	20	146	47	4	4	0	0	0	9	2	80	7	6	6	0		0
Osceola	16	75	2	3	2	0	0	0	0	4	64	2	3	1	0	0	10
Shiawassee	17	120	4	0	13	0	0	6	3	0	94	10	4	0	0	0	3
	155	1,200	187	63	131	7	3	27	18	22	742	45	54	24	10		21

TABLE OF TEXT-BOOKS AND OTHER ITEMS.—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Reading. Names of Authors or Publishers. Harper.	McGuffey.	Wilson.	Sanders.	Watson.	American.	W. Blackman.	Appleton.	Webb.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	74	12	10	6	3	1	1	0	1	27	3	6	3	3	0	0
Lenawee	22	197	100	0	7	22	1	6	0	0	7	54	4	9	7	2	0	0
Hillsdale	18	169	26	4	0	75	11	0	0	4	0	49	0	5	9	2	0	2
Branch	16	128	58	1	3	24	3	0	0	9	0	30	1	5	8	1	0	1
St. Joseph	16	119	16	1	1	16	14	4	0	13	5	49	1	6	7	1	0	1
Cass	15	111	56	0	4	5	9	3	0	4	0	30	1	9	4	1	0	0
Berrien	20	146	96	0	1	2	5	2	0	5	4	31	6	7	6	1	0	0
Osceola	16	75	1	2	1	0	9	2	0	0	2	58	5	2	1	0	0	8
Shiawassee	17	120	75	0	1	7	2	1	0	1	0	33	9	4	2	1	0	1
	155	1,200	502	20	28	157	57	19	1	36	19	361	30	53	47	12	0	13

TABLE OF TEXT BOOKS AND OTHER ITEMS.—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Arithmetic. Names of Authors or Publishers. French.	Harper.	Robinson.	Ray.	Davies.	White.	Walton.	Wilson.	Stoddard.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Six.	Unknown.
Monroe	15	135	45	28	13	12	9	4	2	1	3	18	1	4	5	2	2	1	0
Lenawee	22	197	43	51	40	0	0		1	0	16	45	3	6	7	3	0	1	0
Hillsdale	18	169	12	4	78	4	9	0	0	0	7	55	2	3	1	7	2	1	2
Branch	16	128	38	17	9		11	1	0	0	2	49	2	1	5	2	5	0	1
St. Joseph	16	119	3	8	62	0	13	3	0	0	5	25	3	6	5	2	0	0	6
Cass	15	111	21	35	26		10	4	0	0	0	14	1	7	5	1	1	0	0
Berrien	20	146	9	85	10	0	12	1	0	0	14	15	3	6	7	3	0	0	1
Osceola	16	75	0	1	4		15	1	0	0	0	53	6	5	1	0	1	0	3
Shiawassee	17	120	29	42	4	0	9	0	0	0	6	29	5	5	5	1	0	0	1
	155	1,200	200	271	246	19	88	15	3	1	53	303	26	43	41	23	11	3	14

TABLE OF TEXT-BOOKS AND OTHER ITEMS—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Grammar. Names of Authors or Publishers. Swinton.	Reed & Kellogg.	Livingston.	Clark.	Harvey.	Barnes.	Lamson.	Pinneo.	Wells.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	67	0	11	8	6	1	1	1	1	39	5	6	3	0	1	0
Lenawee	22	197	81	28	0	6	29	0	0	2	1	50	4	11	5	0	1	2
Hillsdale	18	169	22	34	0	4	5	48	0	0	1	55	0	4	5	6	1	2
Branch	16	128	43	5	0	13	34	0	0	0	0	33	2	7	2	3	1	1
St. Joseph	16	119	25	16	0	25	6	2	0	0	1	44	1	4	6	4	1	0
Cass	15	111	51	0	1	16	20	0	0	1	0	22	1	6	5	1	2	0
Berrien	20	146	72	0	0	5	15	0	0	0	0	54	3	6	7	3	0	1
Osceola	16	75	7	0	0	18	8	0	0	0	0	42	2	10	1	0	0	3
Shiawassee	17	120	45	0	0	7	7	0	0	0	0	61	6	6	3	0	0	2
	155	1,200	413	83	12	102	130	51	1	4	4	400	24	60	37	17	7	11

TABLE OF TEXT-BOOKS AND OTHER ITEMS—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Geography. Names of Authors or Publishers. Harper.	Monteith.	McNally.	Cornell.	National.	Guyot.	Mitchell.	Steinhart.	Warren.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	88	15	3	2	2	1	1	1	1	21	6	3	3	3	0	0
Lenawee	22	197	110	18	12	2	0	14	0	6	2	33	6	7	7	2	0	0
Hillsdale	18	169	37	63	7	0	0	6	0	0	0	56	1	8	4	2	1	2
Branch	16	128	63	20	7	4	0	0	0	0	0	30	3	3	5	3	1	1
St. Joseph	16	119	50	45	5	0	0	1	0	0	1	17	1	12	2	0	0	1
Cass	15	111	64	21	4	2	0	0	0	0	0	20	2	9	4	0	0	0
Berrien	20	146	101	12	0	0	0	2	0	0	0	28	6	8	6	0	0	0
Osceola	16	75	18	27	0	4	0	0	0	0	0	26	5	5	4	0	0	1
Shiawassee	17	120	81	3	2	2	0	0	0	0	0	32	11	3	1	0	0	2
	155	1,200	612	224	40	16	2	24	1	7	4	263	41	58	36	10	2	7

TABLE OF TEXT BOOKS AND OTHER ITEMS—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	Penmanship. Names of Authors or Publishers. Lamson.	Spencer.	Harper.	Dunton & Sc.	W. B. & Co.	Desmore.	Thompson.	Beer.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	47	20	0	5	1	1	1	0	60	5	4	4	2	0	0
Lenawee	22	197	60	70	0	4	0	0	0	0	63	4	13	5	0	0	0
Hillsdale	18	169	4	81	1	3	0	0	4	4	72	3	8	2	2	0	3
Branch	16	128	26	47	7	3	0	0	0	0	45	3	7	5	0	0	1
St. Joseph	16	119	3	56	3	4	0	0	0	2	51	1	12	2	0	1	0
Cass	15	111	21	47	4	0	0	0	0	1	38	4	8	2	1	0	0
Berrien	20	146	43	45	24	5	0	0	1	0	28	3	8	8	1	0	0
Osceola	16	75	3	11	0	0	0	0	0	1	60	7	3	0	0	0	6
Shiawassee	17	120	26	39	21	0	0	0	0	0	34	5	10	0	0	0	2
	155	1,200	233	416	60	24	1	1	6	8	451	35	73	28	6	1	12

TABLE OF TEXT BOOKS AND OTHER ITEMS—*Continued.*

Counties.	Whole Number of Townships reported.	Whole Number of School Districts reported.	United States History. Names of Authors or Publishers. Scott.	Barnes.	Harper.	Anderson.	Ridpath.	Quackenbos.	Townsend.	Swinton.	Unknown.	No. Townships using only— One.	Two.	Three.	Four.	Five.	Unknown.
Monroe	15	135	62	13	0	7	3	3	2	1	44	2	4	6	3	0	0
Lenawee	22	197	63	24	10	35	3	6	0	0	56	1	8	6	7	0	0
Hillsdale	18	169	13	40	5	22	2	8	0	5	74	1	2	7	3	3	2
Branch	16	128	35	20	6	12	16	1	0	4	48	0	4	6	5	0	1
St. Joseph	16	119	9	27	1	5	1	1	0	11	49	4	2	6	2	1	1
Cass	15	111	37	22	2	3	1	1	0	15	30	2	5	4	2	2	0
Berrien	20	146	41	20	24	14	0	1	0	4	41	2	5	9	3	1	0
Osceola	16	75	6	20	0	0	0	0	0	2	47	7	5	1	0	0	3
Shiawassee	17	120	43	3	14	9	2	2	0	5	42	9	3	4	0	0	1
	155	1,200	309	189	62	107	28	23	2	47	431	28	38	49	25	7	8

In addition to the foregoing named text-books, others are used in a few of the schools in the counties of Branch, St. Joseph, Cass, Berrien, Osceola, and Shiawassee. The names of the books and number of schools in which each book is used are as follows:

ORTHOGRAPHY: *Nine*, viz: Analytical, 6; Beaches, 2; North American, 2; Barnes, 1; Clark, 3; Robinson, 2; Parker, 2; Appleton, 2; Buckwalters, 19; Butler, 1; Webb, 1; American, 1; Edwards, 1; Raub, 3; Comprehensive, 1.

READER: *Fifteen*, viz: Independent, Child's Book, Monroe, Hooker, Patterson, each 2; Model, Robinson, Lippincott, New Graded, Sherwood, Lampson, each 1; Barnes, Swinton, each 3; Normal, 10; Raub, 22.

ARITHMETIC: *Five*, viz: Fish, 5: Everetts, 3; Raub, 28; Clark, 1; Practical, 2.

GRAMMAR: *Nine*, viz: Loomis 4; Patterson, 4; Robinson, 2; Brown, 5; Green, 6; Hooper, 1; Raub, 3; Whitney, 1.

GEOGRAPHY: *Seven*, viz: Thompson, French, Watson, Barnes, Robinson, Hurd, each 9; Swinton, 10.

Of the 1,200 districts in the nine counties named, 458 reported the names of the *Orthographies* used. The remaining 742 districts failed to report.

Readers used: 839 districts reported. The remaining 361 failed to report.

Grammars used: 800 districts reported. The remaining 400 failed to report.

Geographies used: 937 districts reported. The remaining 263 failed to report.

Penmanship used: 749 districts reported. The remaining 451 failed to report.

United States History used: 769 districts reported. The remaining 431 failed to report.

While it is possible that in some districts no United States history was used, there may be some reason for no report under this head from the full number of districts; but the same may not be said of the other branches named in the list.

A GRADED COURSE OF STUDY FOR COUNTRY SCHOOLS.

Closely connected with the subject of text-book uniformity is that of classifying and grading the country schools. A uniform list of books is indispensable to successful grading, but it is not the only factor to be considered in the solution of this problem. More potent agencies than this are required to bring order out of the chaos that exists.

No labor is successful unless it is systematized. The work done in the country schools has but little system connected with it, and, to a large extent, it results in failure. There is a wide difference existing between the country and the village schools. That the work performed in the latter is far superior to that done in the former is an axiomatic fact. The reason for this is obvious. The village schools are thoroughly organized and the instruction given in them is in accordance with some well-established plan—hence their superiority.

In writing upon this subject, it is my purpose to notice some of the evils existing in the ungraded schools, to point out the difficulties to be met and overcome in establishing a course of study, to suggest means by which grading may be facilitated, and to remark the beneficial results of a graded system.

One noticable evil under the present system is the early withdrawal of pupils from the ungraded schools.

The village and city schools are usually well patronized from the country districts. This draft upon the rural schools takes from them the best pupils, and country teachers often present this as an excuse for the random work which they are doing. No doubt this heavy loss to the ungraded districts seriously interferes with building up good schools, but, in my opinion, it is a result and not a cause of the hap-hazard work done in these schools. Were they what they should be and might be made, and what I believe they would be if properly graded, the lists of non-resident pupils from the country would be much smaller in the village schools than we now find them.

Grading is what has given the village schools their excellence and popular-

ity; the want of this is what has made the country schools so inefficient and unpopular.

The frequent change of teachers is another hindrance to the advancement of the ungraded schools. Here the teacher finds no certain amount of work laid out to be accomplished in a given time, and he pursues his labors with no definite end in view. Without a plan to guide him or a purpose to hold him, the country teacher readily becomes an itinerant in his profession. This frequent change of teachers unsettles the condition of the schools and renders useless much of the work that is performed by both pupils and instructors. At the beginning of each term, with a new teacher, the pupils are generally turned back to the beginning of their books, and are required to go over the same topics that they have studied from term to term. School boards generally recognize the folly of so frequent changes, and some are now offering better wages in order to secure the continuous services of *good* teachers. But with such inducements placed before them there is still a tendency among teachers to get out of the ungraded school work. Systematized labor is more attractive and satisfactory than unsystematized, and the graded village schools will continue to attract the best teachers, as well as the best pupils, from the country schools so long as the latter are organized and conducted with so little method.

Another evil resulting from the aimless management of the district schools is the great number of classes that are found in them. At a teachers' association, recently held in one of the older counties, the writer inquired of those present as to the number of classes in their schools. Out of eighteen or twenty country teachers in attendance, nearly half were each hearing over thirty recitations every day. In another county a college student, within sight of his *alma mater*, taught a school of twenty-one scholars from whom he succeeded in forming forty-two classes.

In the same county another young man was so accommodating as to allow the use of six first readers in his school, which necessitated the hearing of that number of classes in that branch of the subject.

This kind of school management, if such it can be called, is not peculiar to the schools and counties referred to, but prevails in every part of the State. I venture the opinion that the ungraded schools in this State, during the winter term, will each average thirty classes. Deducting the recesses and the time consumed in calling and dismissing classes, and there will be left an average of about eight minutes for each recitation. The teacher can give no attention to explanation and instruction, for his time must be wholly occupied in hearing recitations and manipulating classes. With the school well graded, the maximum number of classes need not exceed twenty-two, though all the studies be taught in which a person is required to pass an examination for a third-grade certificate.

The one-sided development of a majority of the pupils who attend the ungraded schools is another evil result of teaching without an adopted course of study. Each pupil, after he has learned a little of reading, is allowed to follow his own inclinations in the choice of studies, and he usually selects them regardless of their sequent relations or of his capacity to understand them. It is not an uncommon thing to find pupils in these schools who are reading in the fifth reader, and yet they do not know the multiplication table. There are others who have been through arithmetic, but they can not read intelligently, and they know nothing of grammar. Frequently young men

and women come from the country to study arithmetic in the village high school, when their education outside of this subject is limited to a *poor* knowledge of reading, writing, and spelling. In the ungraded schools little attention is given to the rational and symmetrical development of the faculties of the child or to the best means of preparing him for future usefulness.

Our present school law gives the district school boards authority to determine the studies to be pursued and to prescribe the text-books to be used in the rural schools, but it is considered more advisory than mandatory. As far as I know, school boards have exercised little or no authority under this law in establishing regular courses of study, excepting what has been incidentally accomplished in that direction by the adoption of uniform lists of text-books. The uncertainty of any permanent and beneficial results being derived from such action was shown in discussing the subject of text-book uniformity.

In 1882 my predecessor in office arranged a course of study for the ungraded schools, and by means of the county institutes it was placed in the hands of a large number of country teachers. In 1883 this course, which may be found in another part of this volume, was re-arranged and tabulated, and copious notes and a daily programme were added to explain its practical use. Twenty-five thousand copies of this course of study were sent out to school officers and teachers during the summer. They were placed in the hands of those present at the county institutes, and the instructors explained them to the teachers and urged the importance of adopting such a plan of work in their schools. It is yet too early to expect any extensive results from these labors, but in this movement there is not the energy and earnest interest manifested which the case demands.

Prof. Daniel Putnam, of the State Normal School, read an able paper upon this subject before the State Teachers' Association in December. This paper is printed with the proceedings of the Association, in the back part of this volume, and I desire here to call attention to it as one worthy of careful perusal. After the presentation and discussion of this subject, a committee was appointed to consider the question of grading the district schools, and to recommend to the next Legislature such measures as would facilitate its accomplishment.

There are difficulties to be encountered in establishing this course of study, which should be carefully considered and clearly understood. The progress made in this work will be necessarily slow and trying to the impatient; but by an earnest and intelligent advocacy of the movement by teachers, school journals, and educators generally, it may be brought to a fair and successful trial in the near future.

With the country schools in their present condition, the principal obstacles to be met in grading are the following: (1) The multiplicity of text-books; (2) The frequent change of teachers; (3) The practice of turning pupils back at the beginning of each term; (4) The short terms, and the few months of school that are taught in many districts during the year; (5) The irregular attendance of pupils; (6) The indifference that many parents manifest in regard to the school work of their children; (7) The leaving of the choice of studies too much to pupils and parents, and aimlessness in selecting them; (8) The indisposition of the inhabitants in the rural districts to accept the changes necessitated by this system, and the unwillingness of some school boards to put it into operation; (9) the failure of teachers to inform themselves in regard to the benefits of a grade course of study, and their unwillingness to make suf-

ficient exertions to secure its adoption; (10) The want of a sufficient record of the work of the school and the standing of pupils in former terms.

Several of the difficulties mentioned would vanish with an effective district or township uniformity law. But with *free* text-books for the schools, and with the *township* as the district unit, very few of these obstacles would stand in the way of establishing and successfully working to a graded course of study.

Following are a few suggestions, which every teacher would do well to heed in classifying pupils for graded work:

1. He should have a well-defined course of study and a daily programme with which he should make himself thoroughly familiar.

2. He should see the district officers, and, as far as possible, the patrons of the school; explain to them the advantages of the graded system, and secure their coöperation. He should, at least, gain their acquiescence to his plans.

3. Organize the more advanced pupils into a class that can finish the course with one or two terms of work. Arrange the other pupils in the succeeding grades, being guided somewhat in the classification by their knowledge of reading or arithmetic, one or both.

4. Hold public examinations at the end of each term, and promote to higher grades those who have successfully done their work. It might be well to have some general exercises and to grant certificates of promotion.

5. Graduate those who have finished the full course, and grant suitable diplomas bearing the signatures of the teacher and the principal school officers of the county, township, and district. Obtain lists of questions from the county board of examiners for the examinations of the graduating class, and invite the examiners or the township inspector to supervise, and the parents to witness these examinations. Finish the course and hold commencement exercises at the end of the winter term, as a larger number of the advanced pupils will attend school during the winter months.

6. Keep a record of the work done in the school which shall show the classification of the pupils, their general standing and attendance, and the advancement each has made in the studies pursued.

It is not expected that the above suggestions can be fully followed in carrying out the plan for grading the schools in the rural districts. To facilitate this movement, some changes in the law must be made. But, whether the law is amended or not, much can be done in establishing a graded course of study by adopting some such measures as those given above. They have been successfully employed in grading the country schools in other states, and every village or city teacher in the graded schools of this State has learned that all such means are effective agents in placing and holding pupils in a graded course. What is most needed to make the scheme successful, is wise and intelligent management and patient, determined, and united effort.

The following are some of the advantages to be derived from grading and classifying the district schools:

1. Evidence shows that the enrollment has increased in those schools that have adopted the plan, and that the general standing of many of them has been raised sixty or seventy per cent.

2. Pupils are placed in the different grades, and at once become ambitious to advance with their classes. They continue longer in school, attend it more regularly, and pursue their studies more faithfully, in the hope of promotion or final graduation.

3. Working in accordance with some method better order is secured, and the school is more easily managed.

4. The number of classes is reduced, the teacher's time is economized, and he becomes more of an instructor and less of a school keeper.

5. In the ungraded schools the choice of studies is left too much to pupils or parents, and their selections generally result in a disproportionate intellectual culture. Under the graded system each student is required to pursue the studies in their order. These are so arranged as to give the pupil a complete elementary education at each step in the course; and should he finish the course of study, he will have mastered all those common branches which give a symmetrical development to the mind, and fairly equip a person for the practical affairs of life.

6. The tendency of this system is to make the teacher's position more continuous and permanent. Working to a plan, he is induced to remain from term to term and work for its successful consummation. The people take a deeper interest in this kind of school work and the cause of education is thereby advanced.

7. With all the rural schools working under the same course of study, fewer evil results will be experienced by a change of teachers; and pupils moving from one district to another, will readily find the classes which they are qualified to enter, thus saving much time to themselves and much annoyance to the teacher.

Teaching under the graded system in the rural schools has been attended with the most satisfactory results. Those who have tried the experiment are loudest in its praise; as may be seen from the following testimony:

In the Wisconsin School Report for 1882, the Superintendent of St. Croix county, E. I. Dewelly, writes: "Already a marked change is seen in those schools which have adopted this system. Great credit is due to the citizens and school boards for their hearty coöperation in all of our efforts at graduation. One school district, No. 4, town of Star Prairie, has worked into a very excellent grade. * * * I think, in time, the system of grading will become a part of our common schools, but it will require time and patient labor, as there are many influences to retard its adoption."

J. T. Lunn, Superintendent of Sauk county, says: "Nothing yet seen in the workings of the course of study weakens my conviction that it is a fountain of good to our country schools, though yet in the budding rather than the fruiting stage. * * * Little or no objection is made to its use, as familiarity has robbed it of its terrors, and experience has developed its merits."

In the Minnesota report for 1881–2, C. W. Smith, Superintendent of Hennepin county, writes as follows in regard to the working of the graded system in the rural schools of that county: "The test of efficiency is not found in the amount of work done, but the thoroughness with which the work attempted has been performed. A fair comparison of the results since the inauguration of the plan, with those secured in the past, will show marked evidence of improvement in this particular. During the school year just closed, the thoroughness of the teaching made itself felt. Thirty schools reported classes for graduation. The pupils worked like beavers, the teachers seemed to vie with each other in their endeavors to prepare their classes to stand well at the March examinations. Nor was the labor in vain, for the graduates showed a fuller knowledge of the subjects required and a higher culture than heretofore, and the education in the lower grades was more symmetrical. The utility and

practicability of the scheme seems to be fully appreciated by the masses of the people. * * * .

"The management of the schools has been improved and simplified by the attempt made to follow a settled line of policy, and the number of daily recitations has been reduced, thus enabling the teacher to do more complete and effectual work in less time than under the old régime."

In the School Journal of May 12, 1883, is found the following statement made by Superintendent Bruce, of Camden county, N. J., in an article upon Grading the District Schools: "During the four years," from 1877 to 1881, "eighteen districts have had graduates. In most every district there is a great desire to have pupils complete the course, and to obtain a diploma. It gives a standing to the school and to the teacher. I can say that more and better work—double the work—is done in the allotted school year, than was done in 1872, and for a much lower rate of compensation."

The graded system has been tried for a number of years in many of the country schools of Indiana, and the experiment has invariably resulted in the improved condition of those schools. In the Journal of Education for Jan. 24, 1884, under this heading: "Why Indiana is a Banner State in Education," the editor gives a long quotation from an article by H. M. Skinner, on educational progress in Indiana. In this article Mr. Skinner gives the grading of the country schools as one of the leading causes of the progress that has been made. Upon this subject he says: "The grading of the country schools has been successfully accomplished in many counties, and as a system its triumph is beyond question. The pupils are classified and seated in the school-room according to classification. They have a definite and established course of study. They pursue it regularly to the end, as do pupils of city schools; and, like those pupils, they graduate with school honors when the course is satisfactorily completed. It is a matter of wonder that our common schools were not graded years ago, and that any one should ever have questioned the success of the plan, much more, that any one should have opposed it.

"We have been behind Illinois in this matter, yet not so far behind as supposed. Ten years ago, while teaching in one of the suburbs of Chicago, under the superintendency of Prof. Albert G. Lane, of that city, I was one of the first to apply the then new system of grading to the work, and to test it in practice. That admirable system of Lane's has gone over many of the States, and proven its value in untold thousands of schools?"

In answer to a letter of inquiry to Napoleon Clark, chairman of the Board of School Inspectors of the township of Ransom, Hillsdale county, the following was received upon the subject of grading the schools of his township: "Thus far the attempt has been successful in a marked degree in the school first adopting the system. This was done in the spring of 1882. The advantages are: (1) definite aims and definite work; (2) no backing up, but a continued progress in each class; (3) obviating the dangerous practice of going over too much ground; (4) furnishing a healthy incitement to pupils to keep up with their grade; (5) reducing the number of classes to a minimum; (6) rendering the pupil's education symmetrical and not one-sided, each study having its proper place and time."

Mr. Clark has succeeded in grading three of the schools in the township, and thinks a number of others would try the plan if it was properly presented to them. In one district he attended the school meeting, explained the scheme, and he found the people and the board willing to listen to his explana-

tions, and the course of study was there adopted by a vote of those present. This shows what an energetic inspector may do in grading the country schools.

In concluding his letter, Mr. Clark says: "I am confident that it is a long step in advance for those who are trying to have good schools and find themselves impeded for the want of system. And I think that, perhaps, if people were made acquainted in some way with the true aims of a school—not altogether to impart a little scattering knowledge, but to train and develop the powers, that they would readily adopt a system looking to that end."

Much more might be said and further evidence might be produced to show the excellencies of the graded system, but it is hoped that the subject has been discussed to such an extent as will lead educators and law-makers to consider carefully and candidly this important question. The most defective part of Michigan's educational system is in the official management and pedagogical work of the country schools. This state of things should not be permitted to continue. In the rural districts a large portion of the children receive their entire education; and the present condition of those schools should lead every intelligent, patriotic citizen to work faithfully and vigorously for their improvement.

School Supervision.

Supervision of the public schools is still an unsettled question in this State. Several of my predecessors have discussed this subject quite fully in their annual reports, and the laws have been amended and revised for the purpose of increasing the efficiency of this important department of public school work.

Our present system of school supervision is essentially the same as it was previous to the establishment of the county superintendency in 1867; and the work done by the township inspectors in the visitation of schools is to-day as useless and unsatisfactory as that performed under any previous plan of supervision.

The people of this State have always recognized the necessity of some sort of school supervision, and the laws have been so framed as to provide for certain officers, who should have a general oversight of the schools located within certain limits of territory; but at no time in the history of our State have the schools been under that effective superintendence that was designed by the founders of our educational system. The laws previously enacted upon this subject have unwisely placed the supervision of the schools either entirely under the control of the township inspectors or in the hands of a county superintendent; and its provisions so limited the amount of time that the supervising officer, under the county system, should devote to this work and the amount of compensation that he should receive for his services, that the office has generally been filled by persons of meagre ability. Under either plan the result has been a proportionate relation between the labor performed, the skill employed, and the remuneration received. It is true that some townships are fortunate enough to secure the services of competent inspectors, who are earnest and energetic, and who are doing excellent work in the schools under their charge; but such townships are exceptions to the general rule.

In my official work I am constantly reminded of the weakness of our educational system in the local supervision and management of school affairs. The charge of general inefficiency on the part of those who are elected to inspect the schools is the complaint most frequently heard.

This is not to be wondered at when we come to understand the qualifications of the average man who is elected to the position of township inspector, and to consider the duties to be performed by such an officer.

Following are the duties of the school inspector, as defined by the school laws of this State:

First. To visit each of the schools in his township, at least *once* each term, and to examine carefully the discipline, the mode of instruction, and the progress and proficiency of the pupils.

Second. To counsel with the teachers and the district boards as to the courses of study to be pursued, and as to any improvement in discipline and instruction in the schools.

Third. To note the condition of the school houses and the appurtenances thereto, and to suggest plans for new houses to be erected, and for warming and ventilating the same, and for the general improvement of the school houses and grounds.

Fourth. To promote by such means as he may devise, subject to the advice of the Board of School Examiners, the improvement of the schools in his township, and the elevation of the character and qualifications of the teachers and officers thereof.

Fifth. To notify the secretary of the board of school examiners of any school within his township that is not being conducted in a successful and profitable manner.

Sixth. To make such reports of his official labors, and the condition of the schools, as the Superintendent of Public Instruction may direct, or the Board of School Examiners may request.

Seventh. To perform such other duties as may be required of him by law, or that the Superintendent of Public Instruction may direct.

These regulations cover an important field of labor, and they demand better talent and more time than are generally given to this class of school work under our present system. These provisions of the law are poorly observed, and the frequent charges of inefficient services are not without foundation.

In round numbers there are 9,000 schools in the State to be visited by the township superintendent "at least once each term." Allowing three terms in the year, the minimum number of visits to be made by these officers during the year is 27,000. As shown by the reports in this office only 4,555 official visits were made during the school year ending Sept. 3, 1883. The number of *different* schools visited during the year is reported at 2,982, leaving 6,018 schools unnoticed by these officers whom the law requires to visit each school at least once each term. The 2,982 schools that were inspected received 4,555 visits, each averaging 2½ hours in length. In other words, the few inspectors who considered visitation necessary at all, each spent an average of 4½ hours in each of the schools under his jurisdiction during the year.

Failure to secure the amount of inspection required is not the only fault to be noticed in this connection. It is just to presume that persons well qualified for the position of inspector are more prompt and faithful in the discharge of their duties. It is also safe to conclude that a goodly portion of the visits reported were made by persons possessing little knowledge of school affairs.

If the supervision of the schools is to have any value or significance in it, it must be done by men having a liberal culture and a practical knowledge of the work. It is an injustice to the teacher and of no benefit to the schools to be examined and criticised by inspectors who do not understand even the rudiments of teaching. Yet these officers are required by law, under a penalty for

the non-performance of their duties, to counsel with the teachers and district boards as to the discipline and instruction in the schools, and to improve, by such means as they may devise, the character and qualification of the teachers and district officers. This may be considered an extreme view of the case, but the reports in this office show that only about one-fourth of the township inspectors have paid any attention to the visitation of schools. I am ready to admit that there are exceptions to the above statements, and that some of the superintendents are doing good service; but, from all the information that I can gather upon this subject, I am convinced that nearly all of those who failed to inspect the schools, and fully one half of those who reported visitations, were incompetent to perform the work of supervision.

As shown by the sixth and seventh duties of the township inspector, he is required to make annual reports of his official labors and the condition of the schools to the Superintendent of Public Instruction. By this provision of the law it was designed that the Department of Public Instruction should be regularly informed of the workings of the educational system in all of its branches, from the rural district school to the State University.

From this Department is required annually a report, stating the condition of all incorporated institutions of learning, and of the primary, graded, and high schools. A large portion of this report relates directly to the schools under the supervision of the township inspectors. Blanks are sent out from this office each year to these officers, for the purpose of collecting such items and information as will lead to a general understanding of the management and condition of the schools, and as will show the valuable features and the weak places in the public school system. Whether the foregoing requirements of the law are fulfilled, or whether it is defective and inoperative, I will leave it to the reader to judge from the following facts: There were 1,020 blanks sent out to the chairmen of the Township Board of School Inspectors in 1883, to be filled out by them and returned to the secretaries of the county boards of examiners. The reports of the secretaries to this Department show that only 641 chairmen returned these blanks, many of which were but partially filled. Three hundred and seventy-nine, or more than a third of the whole number failed to make any report, as required by law. Comment upon the above facts seems unnecessary.

Below are given a few extracts from the secretaries' reports, which show some very decided opinions upon this question, both from the secretaries and the chairmen themselves.

George A. Parker, Secretary of Sanilac county, writes: "The statistics here given may be *approximately* correct, but it is next to impossible to get accurate answers to *some* of the questions. *Township supervision* of the schools is a mere farce in a large percentage of the townships of the State. Inspectors say so themselves. Argument is unnecessary."

J. H. Sharpe, Secretary of Bay county, says: "There is another great fault that could be overcome if the inspectors would do their duty. The present supervision of the schools is but a farce in three-fourths of our townships, but the board is doing all it can to become acquainted with the teachers and the wants of the schools, by holding meetings every two months, and almost insisting that teachers shall be present. By this means we learn their modes of teaching and qualifications better than by any written examination."

In his report for Manistee county, Geo. H. Kilborn says: "Very many of the schools have not been visited by the chairmen of the boards of inspectors

during the past season, and only about one-half of the chairmen made reports. I think our system of *visiting* can be *improved.*"

The Secretary of Isabella county, Free Estee, writes: "The present system of having a board of three school examiners works well, and a marked improvement in the schools of the county is noticed. The main defect is that this board does not have the supervision of the schools. If the law were so amended as to place the personal supervision and visitation of the schools of the entire county in the hands of the Board of School Examiners, or one member of that board, it would certainly be a much needed improvement and one very beneficial in its results."

N. L. Downie, of Muskegon county, says: "I have done all in my power to get the report called for ready in time, but you will see from the one sent you, and specimen of chairmen's report enclosed therewith, the unreliable character of the reports furnished the secretary by the several chairmen. Many of them are *absolutely worthless.* I have had no data upon which to base a satisfactory report. I have spared neither pains nor expense to secure reliable reports; have written to chairmen *repeatedly*, sent them *all* the blanks furnished by the Department, and I regret to state that many of my letters received no attention. Cause: *ignorance* or *indifference.* Arrangements are being made to secure reliable reports *this year*, and if they are not furnished *promptly* we must know why."

Harvey Tappan, Secretary of St. Clair county, writes in regard to the feeling of the chairmen of his county concerning supervision, as expressed by them at their last annual meeting, 18 of the 23 being present: "Every one of the chairmen expressed himself as being well pleased with the general progress of the schools and the work of the examining board, but all but one of those present spoke in favor of so amending the present law as to make it the duty of the secretary to visit each school in the county. They all seemed to think that the system cannot be entirely successful until such a step is taken, and they requested me to correspond with you to that effect."

Gilbert H. Blodgett, Secretary of Mason county, writes: "In my judgment the greatest defect in the present system lies in the method of the visitation of the schools. In older counties, doubtless, the defect is not so apparent, or, perhaps, does not exist; but with us not one in three of those to whom this important and delicate task is delegated, is capable of performing it so that any advantage accrues to the school or teacher. Many of them do not go near the schools. They do not even know who have taught them, and they make no reports. * * * The law, I think, should be so amended that the teachers can be visited by those who grant them certificates, and who by such visitations can better judge whether the schools can be safely trusted with these teachers."

Secretary Sears, of Macomb county, writes: "The present method of supervision is scarcely satisfactory. Reports have been generally received, but they appear to have been very carelessly compiled. I believe a single superintendent preferable to fourteen."

In the above quotations is to be seen a statement of facts which clearly indicates that local supervision is not what the law intended it should be, is not what the necessities of the schools demand, nor is it what every earnest educator and patron of the schools should attempt to make it. The inefficiency and indifference or negligence on the part of township inspectors are not peculiar to the new counties alone, but these faults are quite as general and marked in the older portions of the State.

It may be asked, "Does supervision of the schools pay? If so, how much and what kind?" Before answering this question let us consider the value of supervision in business pursuits. In every branch of industry requiring the employment of any considerable number of persons, certain ones are appointed, for their ability and experience, to exercise a general oversight over the work performed by a few individuals. Economy and efficiency require system, and system makes supervision necessary.

The contractor who engages to build a railroad sends out not only his laborers, but with each gang of men a "boss," who directs the workers and superintends the work. Before the road is accepted from the contractor, skilled inspectors are employed to examine the character of the work in progress and completed, and they make their report to some higher supervising authority of the company. Railroad corporations recognize the importance of intelligent supervision, both general and special, and the large amounts that they pay annually for that kind of work saves them much more than it costs.

A large, well organized printing establishment has its press-room, proof-room, news-room, job-room, counting-room, editorial-room, and bindery. A certain class of work is done in each department, which may employ but a small number of laborers; but every department has its foreman, who directs and inspects the work done and exercises a limited authority over the persons under his supervision. Besides the foreman a manager, or superintendent, is employed, who has a general oversight of the entire business.

A manufacturing establishment which I recently visited employs 150 persons. It is supplied with the most approved machinery made, and mostly skilled workmen are employed. The proprietor of this establishment does not permit his men to pursue their labors at such times as best suits their convenience, nor to select or reject such portions of the work as they may choose. To supervise this business and manage it economically it is found necessary to employ a superintendent, an assistant superintendent, seven foremen, a time-keeper, and a book-keeper.

The business man who engages a half-dozen carpenters or masons to build his house considers it economical to secure the services of a skilled mechanic to plan and supervise the work. So the farmer who employs a number of men to labor upon his farm, finds it necessary and profitable to give all or a portion of his time to laying out the work and seeing that it is properly executed.

The business manager of every department of industry understands the value of systematized labor, and recognizes the importance and economy of skilled supervision. The strongest argument in proof of this assertion is the fact that it is so extensively practiced by every kind of business enterprise of any importance. And this too under the management of men who practice the principle of not paying out a dollar except they are to get value received in return.

If supervision is so valuable and necessary in the management of business matters, why is it not equally as valuable and necessary in the management of school affairs? Every business enterprise, public or private, which employs a score of men or more and expends a few thousand dollars annually is placed under constant, strict, and skilled supervision, in order that the best results may be secured.

The same wise policy is not practiced in the management of the rural schools. If competent supervision is necessary in any business or calling, it certainly should be employed in that of public education. This is true whether we

consider it in regard to its results, or costs, or its teaching force. There were enrolled in the country schools during the last school year 221,228 pupils, and $1,953,966 were expended upon them. One third of the teachers employed were without experience, and four-fifths were found qualified to receive only third-grade certificates. The 6,360 schools in the rural districts were under the control of 11,723 different teachers during the time mentioned. Notwithstanding the amount of money expended and the great interests at stake in these schools, they were largely without intelligent or effective supervision. Novices and incompetents were left as much to themselves in their work as teachers of the most successful experience.

The graded schools of the towns and cities have long since learned the value of skillful supervision. The growth of these schools, the reputation which they have attained, and the excellent work which they are doing, are, in a great measure, due to the oversight and directive authority of a competent Superintendent. The average cost per pupil for supervision in the graded schools of this State is about 80 cents.

The boards that have the control of these schools are generally composed of men possessing good business ability, and it is fair to suppose that they would act as wisely and practice as strict economy in the management of school affairs as they would in the transaction of their own business. They know the cost of supervision and its value, and are willing to pay a fair compensation for this kind of school work. They understand that supervision pays, and neither they nor the patrons of the schools are yet ready to dispense with it. Were one half as much per capita paid for supervision in the country schools as is paid in the graded schools, it would provide for a competent superintendent in every county. It would also supplement his work by sufficient township assistance to render it thorough and of incalculable value to the rural schools.

Speaking of the value of supervision in these schools, James P. Slade, State Superintendent of Illinois, says, in his report for 1880: "For the last three years the Illinois State Fair has offered premiums for the best work of different kinds from country schools. I have just looked up the records of the entries, and of the awards of premiums. I find that eighteen counties have entered work—ten in which there was school visitation, seven in which there was no visitation, and one in which there was limited visitation. Twenty-nine premiums were awarded, of which twenty-six were taken by schools in which visitation of schools was allowed, two went to a school in the county in which there was limited visitation, and one to a school of a county in which there was no visitation."

In his report for 1857–58, William P. Howell, Ex-Superintendent of Illinois, says: "No system of common schools has ever succeeded in this country without constant, thorough, and vigilant supervision; and just in proportion as they received the watchful care of duly authorized agents, have they been successful and accomplished the high ends of their creation."

Ex-Supt. E. E. White of Ohio writes: "The experiment of conducting a system of education without vigilant, intelligent oversight has been often tried, but always with the same result—a want of system and thoroughness. Deprive the graded schools of the State of all superintending care and direction, and they would rapidly decline in standing and usefulness."

The following is from J. P. Wickersham, Ex-Supt. of Penn.: "'That is the best system of schools which is best supervised' has become a maxim among experienced educators all over the world. All the foremost educational countries of Europe—Prussia, Holland, Switzerland, Sweden—have a close and

careful supervision. Such a system is simply the application of the principles that are observed by successful business men in conducting large operations of every kind. Our railroads, mines, mills, manufactories, all have their system of supervision. Without some such organization, good schools are, as a rule, impossible."

The kind and amount of supervision is the next question to be considered. Enough has been already said to show that supervision under the township plan is not what, in kind or quantity, the schools need, nor what the law intended it should be.

The county seems to be the better unit for managing supervisory school work. The examination of teachers and the supervision of schools should be placed in the same hands.

Successful experience and scholarship are two essential elements in the make-up of a good teacher. The examining officers, under our present laws, have no regular means of ascertaining the character of the teacher's work in the school-room. The examining board now grant certificates almost entirely upon the scholarship of the applicants.

No doubt, injustice is frequently done to both teachers and schools, under our present regulations, by licensing some who are good scholars, but failures in the school; and by refusing certificates to others who have taught successfully for years but failed to pass the required examination. Examinations are essential, but they are not the *only* means by which to determine the qualifications of a good teacher. With beginners there is no other test, but with persons of experience, their success in the school-room should go far towards securing them a license to continue in their work.

I would advise placing a large portion of the supervision of the schools in the hands of the secretaries of the county boards of examiners.

A part of the supervision might also be profitably left to the township inspectors, but directly under the control of the county officer.

There is need of a closer, co-operative relation between the school authorities of the county and the township. As it is there is but little connection between the work of the county examiners and the township inspectors. Were they more united in their labors, and the township officers made responsible to the secretary of the county board of examiners for the performance of the duties placed upon them, a missing link would be supplied in our educational system that would make it quite complete.

This plan was recommended by Hon. C. A. Gower in his report for 1880. He says: "I am strongly of the opinion that the intimate connection of the county and township officers and their close responsibility to each other are of the highest importance. The county officer, whether county superintendent or secretary of the county board of examiners, must do some special visitation in any well-ordered system. The more visiting he does, the more he needs the local help of an alert and faithful township officer. * * * It seems to me that the executive officer or secretary of the county board must be relied upon to devise plans for the uniform and systematic visitation and reporting of the schools by the township officer, and to supplement the work of that officer in important and difficult cases."

The plan which I would recommend is essentially the same as the one suggested above. I think, however, that the secretary of the county board should be the chief supervising officer and that his work should be supplemented by the township inspectors. By having a general oversight of the schools of the whole county, and a directive authority over the work of the

inspectors, an efficient superintendent or examiner can make his influence felt in every school in the county.

I would recommend that the county superintendent be not an elective officer, but that he be employed by the county board of examiners. This would necessitate some change in the law constituting the board. I would suggest that there be two members of the board elected as at present, and that the judge of probate constitute a third and temporary member for the sole purpose of employing or discharging a county superintendent. The Superintendent should be *ex-officio* member and secretary of the board, and in addition to the present duties of that officer, the direct supervision of the schools should be placed under his control.

It is desirable that school affairs should be placed, as far as possible, beyond the reach of political bias and influence. This object would be accomplished, in the supervision of the schools, by employing the superintendent as above indicated. I can see no good reason why a county superintendent should not be employed upon the same principle that a city superintendent is employed, viz., fitness for the position. By such a plan the county board would be permitted to select the best man for the place, wherever they might find him. They could pay a salary commensurate with the talent employed and the services rendered. They could hold the superintendent responsible for the faithful discharge of his duties, and dismiss him if they were not performed in a satisfactory manner.

A superintendent employed upon this basis would be obliged to give his entire time and attention to school affairs; and, knowing that the tenure of his position depended upon the efficiency of his work and the faithful discharge of his duties, his best energies would be given to his official labors.

Besides visiting the schools as frequently as possible himself, with this plan of supervision the county superintendent could call together the inspectors and hear their reports concerning the work of the teachers and the standing of the schools in each township. At these meetings the county officer could advise with his subordinates as to the best means and most approved methods of managing schools and imparting instruction. Every inspector would go from these meetings better disposed and better prepared to do the supervisory work which the law might require or the superintendent direct. In this way could be exercised that close, constant, intelligent supervision which has given vitality and excellence to the graded schools, and which would be equally effective in improving the condition of the country schools.

It may be said that the adoption of this plan of supervision would be a return to the county system of superintendency which was so unsatisfactory a few years ago in many counties of this State. It may be called the county system, but its name should not condemn it. County supervision has proved a success where it has been liberally supported and fairly tested. In professional affairs as well as business matters people generally get what they pay for. This was true in our experience with county supervision. It did not fail on account of the inefficiency of the plan, but because the time and compensation of the superintendent were so limited in nearly every county that men of ability could not be induced to take the position. What was needed was more time to do the work, better men to do it, and better pay for what they did. A few counties gave liberal salaries, and they generally had good and satisfactory supervision. The plan which I have suggested embraces county and township supervision, the latter supplementing the former to such an extent as to make it thorough and efficient in every county.

The following extract on county superintendency is taken from an article written by H. M. Skinner, on educational progress in Indiana:

"The first considerable step in the way of improvement was the establishment of the county superintendency. I well remember with what interest the subject was hailed when, at our county institute in 1872, I introduced, as chairman of the committee on resolutions, a memorial to the Legislature petitioning for the extension of the powers and duties of the school examiner to those of a superintendent of the public schools of the county. The county superintendent came the next year; but for a long time the office was, in many counties, treated almost with contempt, and sometimes was filled by grossly ignorant and immoral men. * * * * * * * *

"The successful superintendent organizes the schools of the county—scattered as they always are—as symmetrically as the city superintendent organizes his; exercising over them a corresponding oversight and control, assuming responsibility, and exerting his authority to bring them up to the standard in discipline, instruction, and system. He has proven, in fact, the main pillar in the edifice, and has wrought a revolution beyond the anticipation of most of his advocates."

The cost of county supervision is an objection that will probably be brought against the plan suggested. I think it can be shown, however, that the visitation of schools by township inspectors is more expensive in proportion to the work done and good accomplished than county supervision would be under the proposed plan. The county secretaries reported to this Department the number of visits made by township inspectors during the last school year as being 4,555. The amount paid to these officers for visiting schools is given at $14,370. This makes $3.15 for each visit. The law requires that the inspector shall visit each school at least once each term. In round numbers there are 9,000 schools in the State, and nearly all the districts have three terms in the year. At this rate there would be 27,000 terms of school and consequently 27,000 visits required. Deducting 1,500 from this number for those schools that have but two terms in the year and there is left but 25,500. At $3.15 a visit, we get from this about $80,000 for visitation of schools in this State, providing the *minimum* demand of the law is met. Should the *implied* requirements of the law be fulfilled this amount, at the present rate paid for visitation, would be largely increased. In this calculation the value of the present supervision to the schools has not been taken into consideration.

The above amount would secure the continuous services of a competent superintendent for every county in the state, and a small sum in addition would supplement his work by township inspection, in the more populous counties where such assistance might be needed.

A valuable paper, by Jay Calkins, of Leslie, touching upon this subject, can be found in the proceedings of the State Examiners' Association, in another part of this volume.

The High Schools.

The public school system has gained such popularity that but few persons are now to be found who can be considered its enemies. Occasional criticisms, however, are made upon the work done in the public schools, and defects—sometimes real, sometimes imaginary—are pointed out in our plan of popular education.

No business, affecting the whole people, should be screened from public inspection. This is true of the schools. They should be planned upon such

a basis and conducted in such a manner as to withstand and profit by just and intelligent criticism.

It is my purpose to present here a few statistics from several high schools of the State, in order to give a better understanding of certain points in the workings of these schools towards which criticisms are occasionally directed.

In answer to a circular sent to a number of high schools, the following statistics were received:

OCCUPATION OF THOSE SENDING PUPILS TO THIRTY-FIVE HIGH SCHOOLS.

Pupils whose Parents are	Merchants.	Lawyers.	Doctors.	Ministers.	Farmers.	Mechanics.	Teachers.	Day Laborers.	Unclassified.	Whole No. Enrolled.
Boys	127	37	28	24	453	156	7	133	210	1,175
Girls	156	25	40	32	522	216	13	224	393	1,621
Total	283	62	68	56	975	372	20	357	603	2,796

OCCUPATIONS OF PERSONS WHO HAVE GRADUATED FROM TWENTY-EIGHT HIGH SCHOOLS DURING THE FIVE YEARS BEGINNING WITH THE CLASS OF 1876.

Graduates who are	Merchants.	Lawyers.	Doctors.	Ministers.	Teachers.	Farmers.	Mechanics.	Day Laborers.	House-Keepers.	Unclassified.	No. of Graduates.
Males	51	35	15	2	32	41	7	13	------	149	345
Females	12	------	2	------	238	------	1	2	168	164	587
Total	63	35	17	2	270	41	8	15	168	313	932

FINANCIAL STANDING OF THOSE SENDING CHILDREN TO TWENTY-FIVE HIGH SCHOOLS

Pupils whose Parents are Worth Less than	$500.	$1,000.	$2,000.	$3,000.	$5,000.	$10,000.	$20,000.	Over $20,000.	Whose Parents are Dead.	Total.
Boys	122	104	115	114	124	101	40	44	19	783
Girls	188	177	173	128	169	118	60	40	29	1,082
Total	310	281	288	242	293	219	100	84	48	1,865

The Detroit schools are not included in the above report, but from the *Post and Tribune* of May 10, 1880, the following statement is obtained:

Whole number enrolled in the high school, 675.

Forty-one pupils are children of book-keepers and clerks.

Six pupils are children of printers.

Four pupils are children of teamsters.

Three pupils are children of porters.

Seven pupils are children of laborers.

Thirteen pupils are children of machinists.
Eighty-four pupils are children of mechanics.
Sixty-two pupils are children of widows.
Of a number of others the occupations are unknown.

The parents of 383 pupils pay no State or county taxes. Parents of 60 pay taxes on property worth less than $1,000. Parents of 57 pay on $1,000 to $2,000; of 22, on $2,000 to $3,000; of 39, on $3,000 to $5,000; of 55, on $5,000 to $10,000; of 37, on $10,000 to $20,000; of 21, on over $20,000.

ENROLLMENTS, WITHDRAWALS, AND HEALTH OF PUPILS IN THIRTY-FIVE HIGH SCHOOLS DURING THE SCHOOL YEAR 1882-3.

Items.	First Year.		Second Year.		Third Year.		Fourth Year.		Total.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
Total Enrollment.	528	666	326	482	163	283	86	150	2,684
Causes of Withdrawal:									
Ill-health	13	33	6	29	3	11	2	5	102
To work	147	45	88	41	47	18	15	3	404
Death	1	1	------	------	------	------	------	------	2
Removal	14	24	12	19	6	7	------	2	84
To teach	3	23	20	76	15	40	3	14	194
To enter other school	15	21	3	6	2	2	2	4	55
Deficient scholarship	15	19	6	11	3	7	2	1	64
Disaffection	7	9	5	2	5	5	------	------	33
All other causes	18	51	15	34	7	18	1	1	145
Total withdrawals	233	226	155	218	88	108	25	30	1,083
Health:									
No. whose health has been injured by study	------	3	------	2	------	3	1	1	10
No. whose health has been injured by going up and down stairs	------	6	------	9	------	5	------	5	25
No. whose health has been affected by any other cause	8	32	5	2	8	1	1	3	60
Total	8	41	5	13	8	9	2	9	95
Eyes:									
No. troubled with myopia	13	20	8	21	------	12	1	4	79
No. contracting myopia while in high school	------	------	2	2	------	1	------	2	7
No. uncertain when myopia was contracted	9	12	2	11	------	7	------	2	43

It is charged upon the high schools, by a class of critics who evidently have not given their thoughts much of a logical test, that they are maintained in the interests of the rich and aristocratic; that the children of the poor are early withdrawn from school and placed at work to gain a livelihood; and that but few of this class ever reach the high school to enjoy its privileges, while all are taxed for its support.

An examination of the financial standing of the patrons of the high schools, as given above, will show the inaccuracy of such statements. The report of the Detroit school gives 56 per cent. of the pupils in attendance as the children of parents who are non-tax-payers.

From the report of 25 other high schools it will be seen that 60 per cent. of the pupils have parents who pay no taxes or are in humble circumstances, being

worth less than $3000. But 10 per cent. of the pupils are the children of parents whose property is valued at over $10,000.

The table giving the occupations of the patrons of the high schools, shows that the parents of 33 per cent. of the pupils in the Detroit high school are from what might be called the working class, or persons employed upon a salary; that of the pupils enrolled in 35 other high schools, 34 per cent. of them are the children of farmers, 26 per cent. are children of mechanics and laborers, and 21 per cent., children of persons whose occupations are not given, but a large portion of which undoubtedly belongs to the working class.

These figures need no comment. They show at a glance that the high schools reported are educating children from every rank in society; and that, were they not free, many who now attend them would be excluded from securing that higher education which they impart.

Again, it is said that the education received in the high schools unfits the person for the common avocations of life; that a majority of the graduates from these schools become shiftless idlers and averse to engaging in manual employments.

While it may be true that a small portion of those who finish the high school course go into productive pursuits, yet it may be seen from the report of the occupations of graduates given above, that nearly all of those reported from 28 schools have engaged in some useful employment.

That more intelligence and education are not found among the working classes, is to be deprecated, and it should be the purpose of every true educator not only to spread knowledge among these people, but to direct those who come under his instruction into productive occupations. In this way the ranks of the workers may be filled by a class of people that will make labor respectable.

If some classes of employment are unpopular, it is to be charged to the false customs of society and not to the higher training in the public schools. The respectability of any kind of labor depends upon the character and intelligence of the individuals performing it. Any honest occupation becomes honorable when its duties are performed by intelligent persons. These principles should be instilled into the mind of every pupil in the public schools until they become a part of his own being. When this is done, and society ceases to frown upon those who soil their hands with manual labor, then we may expect to see a higher degree of intelligence among the working classes, and to hear no more the complaint that high school education unfits the pupil for common employments.

That higher education fosters indolence, I am not ready to admit. True and thorough culture never made a man shiftless. Virtue and industry are the offspring of cultivated intelligence. Sloth and poverty are the children of ignorance. It may safely be asserted that four-fifths of the paupers in the poor houses never received a common school education.

The beggar who asks alms on the street-corner, and the impecunious tramp who gets his bread from door to door, are not from among those who graduate from the high school or even enter it. Culture begets a respect that will tolerate no such support. A good education renders a man too proud to depend upon private or public charity for what he eats and drinks, and too industrious and ambitious to waste his time and strength in an idle, aimless life.

Anxiety about the health of children in the public schools gives rise to another class of critics. The continuous, tedious drill and over-work of the school-room is wearing out the life of the pupils and rendering them unfit for life's labors and enjoyments. Such are the complaints that these critics make.

If sickness or any other affliction comes upon a child during his school days, it is quite customary to find the cause for it, in a wholesale sort of way, in the restraints and duties imposed by the school. Such conclusions are unwarranted and illogical. School-rooms are generally heated, seated, ventilated, and lighted with special reference to the preservation of the pupil's health. Studies are so arranged in the course as not to over-tax the scholar of average ability in each grade, and every teacher of experience knows that no pupil in the public schools is obliged to apply himself so continuously or vigorously to his work, as to endanger the health of an ordinary constitution.

Three-fourths of the children in the public schools have more safeguards thrown around them for the preservation of their health in the school-room than they find in their own homes. It is true that some pupils injure their health while going to school, but I am convinced from my own experience as a teacher, that the cause for but very few cases of ill health can be traced to the school-room.

In a foregoing table will be found a health report from 35 high schools in this State. It will be noticed that out of an enrollment of 2,684 students, 95 cases of ill health are reported. Only 25 of these are attributed to the schools, viz.: 10 to study, and 15 to going up and down stairs. The number of cases of myopia reported is 79, of which seven were contracted while in the high school.

Another class of critics would cut off the high school from the educational system, and confine teaching in the public schools to instruction in the elementary branches.

The high school is an established thing in this country. It has come to stay, and from its popularity I have no fear that the people will be influenced by those complaints that are brought against its support at public expense. Many reasons might be given for the maintenance of the high school as a part of the public school system. A few of those reasons will be briefly considered:

First, It has a reflex action upon the lower grades. Education works from the top downward. Those countries have the best primary and grammar schools that provide most liberally for secondary education. Francis Adams, for a long time Secretary for the National Educational League of England, says: "Experience has proven that elementary education flourishes most where the provisions for higher education are most ample." The work done in the primary and grammar departments of the graded schools is much superior to the work done by the same grades in the rural schools. One reason for the superiority of these schools is the existence of the high school. Every pupil enters the lower grades with this goal constantly before him. He attends more regularly and studies more earnestly that he may finally obtain the honors attached to his admission into this higher department.

Second, It will be seen from the table of occupations given above, that 270, or 29 per cent. of the 932 high school graduates, were engaged in teaching. The Detroit high school furnished 226 teachers from 1876 to 1880, and in 1883 sixty-five per cent. of the teachers employed in that city were educated in their high school. What do these figures teach? This: That a large proportion of the teachers in the primary schools are the product of the high schools. Were the public high schools abolished but few of the poorer girls and boys could afford the higher training which they provide; and since nearly all our teachers come from this poorer class, it is evident that, without the high school, the lower grades of schools could not be readily supplied with well-qualified teachers.

Third, The high school is an important link in our public educational system. Huxley, the English naturalist, says upon this point: "No system of public education is worthy the name unless it creates a great educational ladder with one end in the gutter and the other in the university." Take from our system the high school and one important round in this ladder is wanting. The abolition of this institution would decapitate the graded schools, and at the same time it would do away with those preparatory schools which now enable so many young men and women of moderate means to fit themselves for acquiring a higher culture in the State University.

Michigan has gained, in her educational system, a reputation second to no other State in the union. Our ideal plan is quite complete, embracing all branches of instruction from the lowest studies in the primary grades to the highest studies in the University curriculum; but it is the University and public high schools that have given distinction to our educational system.

Fourth, Economy is another question to be considered in connection with higher education. In the public high school it costs less to impart instruction in the branches taught than it does for the same class of work in the private academy. The average cost per week for educating each pupil in the high schools of this State is less than fifty cents. The cost per week for instructing pupils in private schools of the same grade, is over one dollar.

In conversation recently with a gentleman whose daughter was attending a ladies' private school, he stated that it cost him $400 to send his daughter to this school forty weeks. One half of this amount was expense for room and board, the other half, or $5 per week, was for tuition. Such schools may be patronized and supported by those who are able and willing to pay for the exclusion which a high tuition fee affords, but they are beyond the reach of a large portion of the pupils in the public high school.

Fifth, The high schools should be free and the same educational privileges extended to all classes. In a government like ours, whose chief corner stone is that all are created free and equal, it is impolitic to have society divided into different strata of social caste by unjust discrimination. Make the high school a pay-school and the tendency of higher education will be to such an end. Let the State demand a fee for the higher knowledge which it imparts and it places the seal of ignorance upon many who are now striving for a liberal education. By such an act it spreads a banquet for the rich from which the hungry poor are excluded.

Justice, as well as the interests of society and free government, demands that the poor girl and boy shall have an equal chance with the rich in the search after knowledge. The boy without money must have the opportunity of making himself the intellectual peer of the young man of leisure. Such opportunities are furnished by our free high schools and educational institutions.

The free high school is the poor man's college. From it will go forth the fatherless boy equally equipped with the rich man's son for the duties of a useful life, and side by side they will vie with each other for the rewards of honest labor in any profession or employment.

GRADED SCHOOLS.

Following are tabulated statistics from several graded schools showing the average age of pupils in each grade, number promoted, and number belonging. These are given for the purpose of affording a better opportunity of comparing the progress and work of the different schools.

AVERAGE AGE OF PUPILS AT DATE OF PROMOTION FROM EACH GRADE.

Districts.		1st Grade.		2d Grade.		3d Grade.		4th Grade.		5th Grade.		6th Grade.		7th Grade.		8th Grade.		9th Grade.		10th Grade.		11th Grade.		12th Grade.	
		Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.	Mos.
Battle Creek	Boys	6	3	8	8	9	7	10	5	11	10	13	7	13	8	14	10	16	8	16	10	18	....	18	4
	Girls	6	7	8	6	9	....	9	8	11	....	12	9	13	6	14	5	16	5	16	7	17	10	18	1
Brighton	Boys	6	4	6	10	9	5	10	8	9	7	11	5	12	8	13	7	14	1	15	7	18	7	....	....
	Girls	7	....	7	4	8	7	8	9	9	9	10	4	11	5	13	....	13	8	15	7	16	6	....	....
Cadillac	Boys	7	....	7	9	8	3	9	9	11	2	12	6	13	3	14	6	14	....	14	6	15	....	....	....
	Girls	6	8	7	3	8	6	10	....	11	....	12	6	13	....	13	9	13	9	14	....	15	....	17	....
Caro	Boys	7	....	8	....	10	....	12	....	12	....	14	....	14	....	15	....	15	....	17	....	17	....	18	....
	Girls	6	....	6	....	10	....	10	....	11	....	12	....	13	....	13	....	14	....	16	....	16	....	16	....
Cedar Springs	Boys	9	....	9	8	10	9	11	6	12	....	13	....	13	4	....	....	15	....	....	....	....	....	19	8
	Girls	9	6	10	4	11	....	11	7	12	8	13	6	14	4	....	....	16	....	....	....	....	....	16	6
Coldwater	Boys	7	....	9	....	9	....	10	....	12	....	13	....	14	....	15	....	....	....	....	....	....	....	....	....
	Girls	7	....	9	....	9	....	10	....	11	....	12	....	14	....	15	....	16	....	16	6	17	6	19	....
Flint	Boys	7	2	8	6	8	11	10	8	12	6	13	5	14	6	14	9	18	3	18	6	18	9	19	1
	Girls	6	10	8	5	9	3	10	9	12	3	12	11	13	7	14	1	16	6	16	11	18	5	18	11
Hastings	Boys	6	7	8	....	9	1	10	6	11	6	12	7	13	7	14	8	15	7	16	8	17	9	19	5
	Girls	6	8	8	....	9	....	10	5	11	6	12	6	13	6	14	6	15	6	16	7	17	6	18	7
Hudson	Boys	5	....	6	....	9	....	11	....	11	....	12	....	14	....	14	....	15	....	15	....	17	....	17	....
	Girls	5	....	6	....	9	....	10	....	12	....	12	....	14	....	15	....	15	....	16	....	17	....	17	....
Mount Clemens	Boys	8	4	8	6	9	6	10	9	12	....	12	8	13	6	14	2	15	6	15	4	16	....	18	....
	Girls	7	2	8	6	9	10	10	4	10	6	11	8	12	9	14	....	15	8	16	3	19	....	17	....
Paw Paw	Boys	7	8	10	4	10	....	10	....	9	6	12	7	13	6	14	....	16	5	17	....	15	7	....	....
	Girls	7	6	8	6	10	9	10	9	9	....	12	4	13	1	14	5	15	6	16	6	18	9	19	....
Romeo	Boys	7	8	8	10	10	1	12	....	12	....	13	....	14	8	16	2	16	1	16	10	18	....	18	6
	Girls	7	9	8	6	9	3	10	....	12	....	13	....	14	....	15	6	15	9	15	10	16	6	17	9
Saginaw	Boys	7	3	8	6	9	3	10	6	12	....	13	4	14	....	14	9	16	....	17	....	18	....	19	....
	Girls	7	....	8	4	9	3	10	....	11	6	13	....	14	....	15	....	16	....	16	8	17	6	18	6
St. Clair	Boys	6	....	7	....	9	....	10	....	12	....	13	....	14	....	15	....	17	....	16	....	16	....	....	....
	Girls	6	....	7	....	8	....	9	....	11	....	13	....	15	....	15	....	16	....	17	....	17	....	17	....
St. Johns	Boys	7	8	8	6	9	9	11	8	13	....	13	....	14	....	14	....	15	....	16	9	18	....	20	8
	Girls	7	....	8	....	9	8	10	10	12	....	13	....	14	....	14	....	14	9	15	3	16	....	18	....
Schoolcraft	Boys	6	1	7	3	7	6	9	6	10	....	12	....	11	....	13	....	15	....	16	....	16	8	18	6
	Girls	6	7	7	4	7	6	9	6	10	....	12	....	11	11	13	....	15	....	16	6	18	....	17	6
Three Oaks	Boys	6	....	7	....	9	....	9	....	10	....	12	....	14	....	13	....	14	....	16	....	16	....	20	....
	Girls	6	....	7	....	8	....	9	....	10	....	11	....	13	....	14	....	15	....	16	....	17	....	19	....
Union City	Boys	7	....	8	....	9	....	9	....	10	....	12	....	12	....	13	....	15	....	16	....	17	....	....	....
	Girls	6	....	8	....	8	....	9	....	10	....	11	....	12	....	14	....	15	....	16	....	18	....	17	....
Wyandotte	Boys	7	....	8	....	8	....	10	....	11	....	11	....	12	....	13	....	14	....	15	....	16	....	18	....
	Girls	7	....	8	....	9	....	11	....	11	....	12	....	13	....	13	....	14	....	14	....	17	....	16	....

NUMBER PROMOTED FROM EACH GRADE DURING THE YEAR 1882-3.

Districts.		1st.	2d.	3d.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	Total.	Totals.
Battle Creek	Boys	40	58	42	48	32	27	17	20	31	9	3	5	332	706
	Girls	39	37	53	66	36	28	22	26	24	17	18	8	374	
Brighton	Boys	7	9	13	5	5	10	8	7	6	6	4	----	80	161
	Girls	11	8	5	9	6	7	9	4	11	8	3	----	81	
Cadillac	Boys	17	12	14	13	14	13	12	10	4	4	1	----	124	273
	Girls	22	16	15	15	14	14	13	13	16	5	3	3	149	
Caro	Boys	20	19	19	10	8	5	12	5	7	8	----	1	114	265
	Girls	20	28	26	10	15	6	11	11	12	6	3	3	151	
Cedar Springs	Boys	17	12	10	9	13	4	10	----	5	----	----	3	83	177
	Girls	9	12	18	6	12	11	17	----	5	----	----	4	94	
Coldwater	Boys	74	53	33	30	75	24	19	7	----	----	----	3	318	650
	Girls	76	42	33	42	66	15	32	21	----	----	----	5	332	
Flint	Boys	98	80	76	63	85	70	38	35	20	15	9	2	591	1,247
	Girls	109	88	82	84	71	69	40	54	22	13	10	14	656	
Hastings	Boys	40	29	24	24	23	22	21	19	27	20	10	5	264	567
	Girls	39	28	25	26	27	27	30	25	32	25	14	5	303	
Hudson	Boys	14	15	7	16	9	10	9	3	3	2	----	2	90	229
	Girls	13	16	20	17	10	11	12	14	1	10	11	4	139	
Mount Clemens	Boys	31	25	20	17	15	8	10	9	8	6	2	1	152	325
	Girls	36	40	26	12	20	7	7	12	5	4	3	1	173	
Paw Paw	Boys	3	11	13	13	18	10	7	8	----	10	7	7	107	223
	Girls	13	10	11	11	19	12	9	13	----	8	8	2	116	
Romeo	Boys	11	16	15	16	10	18	5	7	4	7	5	8	122	243
	Girls	14	14	18	16	17	8	16	8	4	3	1	2	121	
Saginaw	Boys	185	140	70	41	60	45	34	8	12	7	5	7	614	1,273
	Girls	201	145	84	40	53	47	29	20	18	10	15	7	669	
St. Clair	Boys	35	30	30	30	30	15	7	3	3	3	----	----	186	433
	Girls	40	35	36	35	36	27	12	8	10	5	7	6	247	
St. Johns	Boys	21	19	21	21	16	14	9	6	5	4	3	3	142	357
	Girls	24	27	38	28	12	17	14	26	15	8	4	2	215	
Schoolcraft	Boys	13	11	6	5	6	2	9	7	4	6	5	2	76	184
	Girls	19	13	4	3	14	6	10	16	7	9	1	6	108	
Three Oaks	Boys	16	15	12	9	8	9	7	4	6	5	4	1	96	187
	Girls	11	14	10	11	12	8	5	4	4	7	2	3	91	
Union City	Boys	18	8	11	6	12	8	9	5	2	4	3	----	86	206
	Girls	15	10	7	6	12	4	13	12	23	10	7	1	120	
Wyandotte	Boys	32	34	30	27	13	18	12	8	2	5	1	1	193	372
	Girls	20	27	24	33	14	15	12	7	10	10	2	5	179	

AVERAGE NUMBER BELONGING IN EACH GRADE FOR THE YEAR 1882-3.

Districts.		1st.	2d.	3d.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	Total.	Totals.
Brighton	Boys	26	11	14	7	5	15	9	8	13	12	7	2	129	246
	Girls	27	13	5	9	7	9	9	6	17	9	5	1	117	
Cadillac	Boys	26	25	24	20	15	15	12	12	4	5	1	1	160	358
	Girls	35	29	27	25	18	15	16	14	8	5	3	3	198	
Caro	Boys	7	8	10	12	12	14	14	15	15	17	17	18	159	302
	Girls	6	6	10	10	11	12	13	13	14	16	16	16	143	
Cedar Springs	Boys	37	11	10	9	8	6	4	10	6	3	----	3	107	211
	Girls	25	9	12	7	7	9	10	9	6	6	----	4	104	
Coldwater	Boys	79	57	39	37	77	28	21	10	3	12	3	4	370	773
	Girls	79	47	42	43	70	19	35	20	15	12	16	5	403	
Flint	Boys	103	79	77	86	91	76	47	45	30	19	11	2	676	1,402
	Girls	115	81	84	93	85	79	45	64	35	28	12	14	726	
Hastings	Boys	49	38	28	25	25	23	22	21	30	24	11	6	302	635
	Girls	47	35	26	26	28	28	30	28	36	28	15	6	333	
Hudson	Boys	14	17	7	17	13	13	17	12	10	2	1	2	125	287
	Girls	18	19	20	17	12	14	15	16	15	6	8	2	162	
Mount Clemens	Boys	62	27	32	22	29	15	11	11	9	6	2	1	227	441
	Girls	61	31	29	13	22	17	9	12	6	9	4	1	214	
Paw Paw	Boys	20	17	16	16	21	13	12	18	14	----	4	----	151	316
	Girls	21	14	13	13	22	17	17	21	12	9	5	1	165	
Romeo	Boys	23	18	23	20	13	19	5	8	12	11	6	7	165	335
	Girls	20	14	20	21	19	9	18	8	15	13	11	2	170	
Saginaw	Boys	220	143	92	71	68	50	33	20	17	10	8	7	739	1,578
	Girls	244	156	90	75	73	58	65	25	20	10	15	8	839	
St. Clair	Boys	40	35	30	29	18	15	6	3	3	4	2	2	187	450
	Girls	55	40	40	38	25	20	14	8	4	7	6	6	263	
St. Johns	Boys	31	24	27	34	25	25	12	8	7	5	3	4	205	476
	Girls	36	22	43	47	14	22	21	33	17	9	4	3	271	
Schoolcraft	Boys	10	8	10	11	9	7	11	9	6	8	8	3	100	232
	Girls	16	10	8	10	17	9	13	20	7	11	4	7	132	
Union City	Boys	40	10	13	10	12	9	15	8	10	14	3	----	144	307
	Girls	21	12	12	8	14	6	14	23	28	18	7	1	163	
Wyandotte	Boys	80	46	43	62	21	28	13	7	3	6	1	1	311	604
	Girls	79	34	32	50	17	21	14	13	14	10	3	6	239	

Prison Schools.

For the past few years the experiment of educating convicts in the penal institutions of the State has been tried, with a fair degree of success.

At the Ionia House of Correction the school is held in the prison chapel four evenings each week. Fourteen convicts are appointed to give instruction under the direction of a superintendent. Attendance is voluntary, and about 100 of the 450 in the prison avail themselves of the privileges of the school. Studying is done in the cells after the day's work is finished. "Long-timers" do not generally go into the school, nor, as a rule, are the illiterates much interested in acquiring an education. Something more than a persuasive influence is required to induce the latter class to become industrious and intelligent.

At the Jackson State Prison the school is conducted on a more systematic plan. Attendance here is made compulsory, but some are excused on account of age, insanity, etc, At the present time 483 convicts are in the school. They are divided into sections, and each division is required to attend school one evening each week. The studies embrace the branches ordinarily taught in the common schools. The school is under the superintendence of E. M. Gardner and, considering the opportunities, is accomplishing good results for those who attend it. The officers of the prison do the teaching. They are generally persons who have had little or no experience as teachers, and some of them are poorly qualified for the work. This fact in itself precludes the highest success possible in the school. In the selection of prison officials it would be wise to select those who are not only competent to perform their official duties but who are also qualified to impart instruction.

Three hundred and nineteen men draw books from the library, and the Superintendent informs me that they at first drew those of a religious or scientific character, but they soon "come to their *real status* and call for fiction; Dickens, Reade, etc." The previous reading of those who are able to read is shown to have been generally of the adventurous, tragical, and exciting character—the Red-handed Jack and Buffalo Bill style.

It is yet early to determine the influence of the school upon the *free* life of the convict, excepting that it is generally conceded that education lessens crime. I am told, however, that the school training has materially improved the discipline and raised the standard of the prison life of the convict, which cannot but have its influence upon him after he has obtained his freedom.

Farther on in this report will be found statistics from the Superintendent of the school which show the educational standing of those incarcerated in the State Prison.

Education and Crime.

It is not my purpose to enter into an extended discussion upon the relations of education and crime, but I wish to present a few facts which are suggestive of the evils arising from ignorance and of the advantages of an intellectual training to both the State and the individual.

It is frequently asserted that crime is on the increase and that the schools are not doing what is claimed for them, viz.: the fortifying of young men and women against the commission of crimes. Upon such statements arguments have been based which, if true, would be damaging to the interests of public education.

In view of determining the truthfulness or falsity of such charges, statistics have been obtained from the State Prison at Jackson, from the Industrial

Home for Girls at Adrian, and from the Reform School for Boys at Lansing, showing the educational standing of the inmates of these institutions.

From the Jackson prison, Superintendent Gardner reports the following, which shows the standing of convicts on entering the school:

Whole number in prison school, Dec. 30, 1883	483
Number that had never attended school previously	73
Number that could read at time of entry in prison school	350
Number that could write name	399
Number that could write alphabet	360
Number that could write letters	343
Number that could make figures	403
Number that could write from 1 to 1,000	366
Number that could cipher in addition	316
Number that could cipher in subtraction	279
Number that could cipher in multiplication	258
Number that could cipher in division	217
Number that could cipher in fractions	94
Number that could cipher in percentage	58
Number that could cipher in square and cube root	27
Number that had studied higher mathematics	25
Number that had studied geography	137
Number that had studied grammar	55
Number that could not write letters	140

General scholarship at time of entry:

Whole number in school	483
Number who were illiterate	107
Number who had a common school education	50
Number who were high school graduates	00
Number who were college graduates	00

The superintendent of the Industrial Home for Girls makes the following report:

Number of girls in the school Nov. 17, 1883	153
Average age of girls at time of entry, expressed in years	13½
Number that attended school regularly before entry	4
Number that attended school irregularly before entry	21
Number that did not attend school	98
Number that were habitual truants from home or school	30
Number that were habitually idle	131
Number that were habitually employed	22
Number that could read and write at time of entry	68
Number that could not read and write at time of entry	85
Number that knew something of arithmetic at time of entry	65
Number that knew something of geography at time of entry	53
Number that knew something of grammar at time of entry	9

One-seventh of the girls have insanity in their parentage.
One-third of the girls have criminality in their parentage.
Two-thirds of the girls have intemperance in their parentage.
Five-sevenths of the girls are either orphans or half-orphans.
One-eighth of the girls have been deserted by one or both parents.

Following are the statistics from the Reform School for Boys, as obtained from the superintendent:

Number of boys in the school Nov. 17, 1883	352
Average age of boys at time of entry, expressed in years	13
Number that attended school regularly before entry	40
Number that attended school irregularly before entry	100
Number that had not attended school	212
Number that were habitual truants from home or school	275
Number that were habitually idle	175
Number that were habitually employed	110
Number that could read and write at time of entry	89
Number that could not read and write at time of entry	263
Number that knew something of arithmetic at time of entry	175
Number that knew something of geography at time of entry	40
Number that knew something of grammar at time of entry	16

What is to be learned from these figures? Out of 483 in the penitentiary school 140 were unable to write. This shows that of the 483 crimes, one-fourth of them were committed by illiterates. Now, but one twenty-sixth of the population of Michigan, old enough to be sent to the penitentiary, are illiterate. From this it is to be seen, then, that one-twenty-sixth of the population commit one-fourth of the crimes—that is, eight times as many crimes are committed by illiterates as are committed by the same number of educated persons.

Of the number in the Industrial Home for Girls, more than one-half were unable to read and write at the time of entering, showing that more than one-half of the crimes of which the girls were convicted were committed by those who were illiterate. The number of illiterate girls in the State of an age to be sent to the Industrial Home for crime—from 10 to 16 years inclusive—constitutes but one thirty-ninth of the female population of that age. Then, we see that, with this class, one-half of the crime is committed by one thirty-ninth of the population, or that an uneducated girl is thirty-eight times more liable to fall into vice and crime than one who is educated.

It will be seen that two-thirds of the boys in the Reform School were illiterate when sent to Lansing, and consequently, that two-thirds of all the crimes were committed by illiterate boys. Since the illiterate boys in Michigan from 10 to 16 years of age are but one twenty-ninth of those included between these ages, it follows that fifty-six times as many illiterate boys are convicted of crime as are convicted among those who are not illiterate.

Another story is told by these figures. The prison report shows that 326 of the 483 convicts were not illiterate, yet they did not have a common school education. It is not my purpose to claim that an elementary education is a potent remedy for crime. In fact, a little learning *may* become a dangerous thing. It is folly to suppose that a rudimentary training will go far towards protecting society from crime or keeping men from the gallows, and no more fatal mistake could be made than to provide for giving instruction only in the elementary topics of study in the public schools. It is the pursuit of more advanced studies that strengthens the moral character and gives direction to the life of the pupil. When the mass of children remain in the public schools long enough to receive this higher training in such a quantity as will prepare them to assume readily the responsibilities of public or private life, *then* it will be seen that education is a powerful agency for good.

Not a high school or college graduate is found in the prison school, and but 50 who can claim a *common school* education.

I am aware that many of the prison reports of other states will show a higher educational standing of convicts than the one given above. Even the records of our own penitentiary will differ somewhat from the statements here made. Each convict, upon entering the prison, is required to give a statement as to his former life and moral and intellectual training. I am informed that the testimony usually given by the prisoner is that he is a person who has lived an exemplary life and availed himself of all educational and religious priviliges. His work in the school room does not corroborate his story to the Warden, however. The figures that are given above were taken from the records of the school, and show, as near as possible, the educational ability of those in attendance.

The statistics of the two penitentiaries of Pennsylvania show that the criminals there have about the same educational standing as in our own State. Superintendent J. P. Wickersham, in his report for 1880, says: "Seven of the four hundred and eighty-seven prisoners had attended a public high school. * * * * Five had been to college for an average length of time of six years. * * * Not a single graduate of a high school was confined within the walls of the penitentiary during the year, and it is probably true that there were no graduates among those who had attended colleges, so-called."

This was stated of the eastern penitentiary. Of the western penitentiary, where 312 prisoners were received during the year, he says that it told "substantially the same story as that told by the eastern penitentiary, the most remarkable fact being that there is but one good scholar among the convicts."

The annual report of the prison association of New York, for 1872, shows that out of 50,000 persons accused of crime in that state, in 1871, only 1,150 were liberally educated.

By consulting the statistics from the two reform schools, it will be seen that idleness as well as ignorance is a fruitful cause of crime. Out of 505 inmates in both of these institutions 306 were habitually idle and 305 were habitual truants from home or school. Had these children been kept at school and employed, no doubt nearly all of them would have been saved from the snares of vice and the commission of crime. More than this. They would have been gaining for themselves an education, and forming those habits of industry which fortify against crime and poverty and prepare the individual for useful and independent citizenship.

Pauperism and Education.

Poverty is another element to be considered in connection with education and crime. It is maintained by some that poverty is the principal cause of the crimes committed, and that ignorance has but little to do with making a culprit.

It has been shown from statistics given above that a large percentage of those sent to the penal institutions of the State are illiterate, and from this showing it is evident that the great bulk of criminals comes from those who are uneducated. Now, if it can be shown that a large proportion of the paupers are illiterate, it must be admitted that ignorance is a potent cause of poverty.

From forty counties in the State, superintendents of the poor made reports to this Department, in answer to a circular that was issued for information upon this subject. These reports show that there were 1,401 dependents in the poor-houses of these counties, Sept. 1, 1883. Of this number 27 were children and 624 were imbecile, idiotic, or insane. Of the remaining 750 five-eighths, or 401 were illiterate. There were reported 38 persons who had attended a high school and 8 who had been to college, but they were largely among the insane. Taking the number who were mentally sound and matured as the basis, and it is shown that illiteracy is much more prevalent among paupers than it is among criminals.

I do not propose to prove that education will keep every person out of the alms-house, but the above facts indicate that but few persons possessed of a liberal culture, willingly suffer themselves to become the subjects of public charity. If poverty, then, should be considered as the principal agency for crime, it seems to me that the best remedy for it is still to be found in the schools, especially those of a higher grade, since so few of the better educated become paupers.

From the facts that have been presented I am forced to believe that wickedness and crime are largely the offspring of ignorance and poverty, one or both; that a good education is incompatable with either; and that the best way to keep young men and women out of the prisons and poor-houses is to keep them longer in school.

There is an economical side to be considered in the question of better education. It is cheaper for the State to educate a child than it is to support a pauper or to prosecute and punish a criminal. The 500 children now in the two reform schools would have been educated at a less expense, could they have been kept in their schools at home.

The county clerks of 39 counties reported to this office the following criminal statistics for 1883: Criminals tried in justices' courts, 6,194; in circuit courts, 556; total cost to counties for arrests, prosecutions, and keeping jails, $183,691; fines collected, $13,463. These reports were from one-half of the counties in the State. Doubling the amount for the whole State and it makes a net cost of $340,456, after deducting $26,926 for fines, or a cost to taxpayers of a little over $27 each for criminal prosecution.

The reports of the superintendents of the poor show that an average number of 3,846 paupers were supported by the counties at an average annual expense of $424.213, or $110.30 per year for each pauper. Outside of the poor-houses 28,651 were relieved, the expense for which is not given.

The correct expenses of the two reform schools show that it takes $69,039 each year to run them, or an average annual expense of $120 for each pupil.

The average cost for educating a child in the public schools of this State is about $7 for 7 months schooling. It will be seen then that the money expended to prosecute each criminal would school 3½ children 7 months in the year; that for supporting a pauper, 15 children; and that for a pupil at the Reform Schools, 17 children.

What is to be learned from these figures and this discussion? The following: That ignorance, poverty, and crime go hand in hand, and that a dollar spent in giving a child a good education saves seven dollars in prosecuting criminals and supporting paupers. Upon this point T. B. Macaulay, the English historian and statesman, says: "For every pound you save in education you spend five in prosecutions, in prisons, in penal settlements. I cannot believe that the House, having never grudged anything that was asked for maintain-

ing order and protecting property by means of pain and fear, will begin to be niggardly as soon as it is proposed to effect the same objects by making the people wiser and better."

The following statement from J. D. Scouller, M. D., superintendent of the Reform School at Pontiac, Ill., has its bearing upon the subject under discussion, and also upon the following subject of cumpulsory education. He says: "We find by experience that criminals (as a class) are not educated persons, either as men or boys. We are convinced that compulsory education would not only help to educate the people, but have a decided influence in diminishing the per cent. of criminals in the State, at least such is our conviction after many years' experience with this class."

Compulsory Education.

In as much as ignorance breeds vice and education is antagonistic to crime, any legislation that can be enforced and that will bring into the schools a greater number of the children of school age, should receive the hearty support of every lover of good society and good government. It is difficult, however, to get legislators to enact strict compulsory school laws, and still more so to secure their enforcement by the proper authorities.

People are quite apt to consider such legislation as a trespass upon the liberties granted them under our free institutions, and an infringement upon the authority which parents have over their children.

Notwithstanding the prevalance of such notions there is a justness in the cause of compulsory education, especially in a government like ours, where schools are free and where so large a per cent. of the children fail to avail themselves of the privileges and advantages which they afford.

All will concede that government has the right to take a portion of the property of the individual for the support of the public school. No one can deny that it also has the same right to demand that a portion of the time of each child shall be given to acquiring an education.

Ignorance is a fruitful source of evil to society, and an element of danger and weakness to republican institutions. The person who pays his money for the education of the masses has a right to demand that the masses shall receive that for which he has been taxed. Persons and property should be protected from the dangers that are the offspring of ignorance. Such protection is sought in the maintenance of the public schools, but it is not secured to the extent that is desirable. The future safety of our government, also, demands to-day, more than ever before, that cultivated intelligence should be one of the prerequisites to the right of suffrage. Upon these grounds alone I can see the most cogent reasons for compulsory school laws that will enforce the largest attendance possible and secure more nearly universal education.

Any law that requires the attendance of children at school a certain portion of the time, should also prohibit their being employed continuously in any business until they had received each year the required amount of schooling.

Compulsory school laws are generally inoperative on account of a prevalent indifference to their enforcement, and from the fact that no particular person or persons are held responsible for their faithful execution. To make such laws effective certain persons should be designated to see that they are strictly enforced, and the officers so designated should be held accountable for a non-performance of their duties.

A most efficient *aid* in the enforcement of any compulsory school law, would

be the apportionment of the primary school interest fund to the different districts on the basis of the daily attendance of resident children. A statute requiring such an apportionment would, in itself, quite largely act as a compulsory school law. The money received from the State would be in direct proportion to the amount of school taught and the percentage of attendance.

It would be for the interest of each district, under such a law, to have the maximum number of months of school each year, and to secure a full enrollment and a regular attendance. I can now see no reason why such a law would not result in good to all educational interests.

I am most heartily in favor of compulsory school laws that are wisely framed and fully carried out, and I am convinced that by such means that healthy public sentiment for compulsory education can be secured which is so necessary for the successful operation of these laws.

The New Compulsory School Law.

One of the most important amendments to the school laws adopted by the last Legislature was Act No. 144, entitled "An Act to Provide for the Compulsory Education of Children in Certain Cases," which went into effect September 7, 1883. The law has not been in operation a sufficient length of time to draw any very intelligent conclusions either as to its general enforcement or its adaptability to the purposes intended. To ascertain some facts regarding its enforcement in towns and cities most directly affected by its provisions, the following circular was sent to a number of principals of graded schools:

DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, Michigan, December 10, 1883.

DEAR SIR,—Being desirous of obtaining such information as I am able, relative to the workings of the new compulsory attendance law (Act No. 144, Laws of 1883), in order that I may be better enabled to present the subject in the forthcoming report of this Department, I address this to you, and trust that you will be pleased to answer briefly the following questions. Please *number* your answers to correspond with the questions here presented:

1. Has your school board taken action toward enforcing any of the provisions of the law referred to? If so, please state what that action has been.
2. Have you opened an "ungraded school," as provided for in said act? If so, state how long it has been in operation, the number of teachers employed, the number of pupils enrolled, the average number belonging, and the average daily attendance.
3. Have the police authorities detailed any "truant officers," as contemplated in said act? If so, state the number of such officers, and give any other information relative to this particular feature of the law that you may deem to be of interest.
4. Have there been any prosecutions under any of the provisions of the act? If so, give as full information as you are able relative thereto, and as to the results of such prosecutions.
5. Has the attendance at the regular public schools been increased by the enforcement of the truant law? If so, please state to what extent.
6. What general beneficial results from the enforcement of the law have you noticed?
7. Please specify in what particulars you deem the law to be defective, and also suggest what amendments to the same appear to be desirable.

An *early reply* to this circular will be considered a favor, as I am in need of the information *at once*, in order that no delay may ensue in the preparation of the report of this Department for 1883.

Yours very truly,
HERSCHEL R. GASS,
Superintendent of Public Instruction.

Replies have been received from 42 cities and towns, of which only 9 report having taken any action in the matter, although several cities that have not reported are known to have provided for enforcing the law. The replies

received show an almost universal approval of the general purposes of the act, both on the part of the teachers and the public, and very little opposition to its enforcement. No prosecutions for violations of the law are reported, and the object sought to be attained has been secured without resort to the courts. There seems to be some ambiguity as to the application of certain provisions of the law to towns of less than five thousand inhabitants, and this uncertainty as to the restrictive intent of the sections following and including section 6 of the act, have deterred the officers in many instances from taking any action to enforce it. Other suggestions and criticisms are given in the following extracts from replies received to the above circular:

E. P. Church, of Greenville, reports that the school board appointed the city marshal as truant officer soon after the opening of the school year. No ungraded school has been established. No prosecutions have been begun. The enforcement of the law did not excite a "ripple of excitement or opposition; only commendation." The attendance has been increased by the addition of all included in the terms of the law. Among the beneficial results noted has been the presence of a number of boys, and some girls, who would otherwise be on the streets. Many parents who had no control over their children are now able to keep them in school.

"In this city it would be well if the compulsory clause included all to 16 years of age, giving the truant officer some discretionary power in the case of those above 14."

Z. C. Spencer, Battle Creek, writes that the board have secured the appointment of a truant officer. No ungraded school established. The attendance has not been increased by enforcing the law. No permanent beneficial results have followed. In conclusion Mr. Spencer says:

"In our city I think the law has been ineffective, mainly because no prosecutions have been had. Criminals cannot be handled by kind words and Sunday-school stories alone. Something made of sterner stuff is needed. Nor can they be deterred from wrong-doing by threats alone; the threats must be accompanied by punishment occasionally. I think the provisions of the law are excellent. The trouble is, what is everybody's business is nobody's business."

C. L. Houseman, of Muskegon, writes as follows:

"In answer to your question contained in Circular No. 1, in reference to the workings of the new compulsory attendance law, I will say as follows:

"1. Our board has taken such action.

"2. We have had an ungraded school for several years. The school is usually maintained about six months each year, during the fall and winter. This year two teachers are employed. Whole number of pupils enrolled, 105. Average number belonging, 54. Average attendance, 51.

"3. One truant officer has been detailed to enfore the provision of the act relating to truants.

"4. No prosecutions. Have carefully avoided them, as we did not wish to test the law if it could be helped. Have succeeded well without prosecuting.

"5. The attendance has been increased. To what extent it is impossible to state. The attendance is considerably larger than last year, but there are several causes.

"6. Many habitual truants have been reformed, and much truancy has been prevented.

"7. Pupils being allowed to choose the time of the year when they will attend

the required number of months, makes it difficult to prosecute offenders. If possible the time should be more definitely fixed."

S. E. Whitney of Hancock writes that the board decided to enforce the law to the letter, and appointed a truant officer for that purpose. No ungraded school has been established. The attendance has been increased about five per cent.

"The regularity of attendance has increased. To the knowledge of the school board, there are none in the district between the required ages who are not attending school. I think it would be well if all persons under 16 years of age were compelled to attend school when not regularly employed."

F. H. Coe, Menominee, states that the board have appointed a truant officer, and intend to enforce the law as far as practicable. Regarding defects in the law he writes:

"Defective first in stating that schools *may* be established and not *must* be.

"Second: In limiting organization of ungraded schools to towns or cities of 5,000 inhabitants. What is to be done in towns of less size and in districts in the country?

"Third: No provision seems to be made for compelling attendance of pupils unless an ungraded school is established.

"Fourth: What shall be done with a truant from 8 to 10 years of age if parent pleads inability to compel attendance. The parent can not be fined and pupil can not be sent to Reform School.

"Fifth: Age should extend from 8 to 16, for in the lumber and mining regions the most unruly cases are over 14.

"Sixth: I would suggest that a failure to comply with the full requirements of this law (and also of other school laws) should work forfeiture of primary school money and 1-mill tax. I would also suggest that when not advisable to organize an ungraded school, that part of the law respecting truants should be enforced as far as compelling them to attend public school is concerned. Also, that directors be compelled to state under oath that the law has been complied with before public money is allowed. Also put the prosecution of corporations for violation of section referring to employment of children in hands that are out of the power of corporation or individuals composing them."

J. S. Crombie, Big Rapids, writes: "The board decided to enforce the law and made a thorough canvass of the city to find how many pupils ought to be in school under the law who were not attending. Notices were then served upon the parents or guardians of such children. The whole number of children subject to the provisions of the law was 150, and the attendance has been increased 125. The enforcement of the law has made regular pupils more punctual. The number of absent and tardy marks has been much lessened, and the discipline of the school has been improved."

J. W. Smith, Alpena, writes: "The board of education in October last requested the city council to designate a policeman to act as truant officer. The city council appointed one policeman as requested. This officer has proved himself very capable. He has not waited to be informed of specific cases of truancy, but has made it his duty to take under his charge any whom he has had reasonable ground to suspect would come under the provisions of the act. The officer has taken the truants to the room where they belonged, and it has been rare that he has been obliged to return such scholar more than once. Up to the present time fourteen scholars have been thus returned, and of this number eleven have attended regularly, two have been removed, and

one has not been regular in her attendance, but has never failed to bring excuses from her parents.

"The attendance has been directly increased by the number indicated above, and indirectly by all who would otherwise have been guilty of truancy.

"The uniting of the municipal with the school authorities in the support of the schools has given *two* bodies a direct interest in their success. The press, and, as far as we can judge, the people as well, approve both of the law and of the measures taken for its enforcement. The fear of punishment has doubtless deterred many scholars who would have been truants, and even upon the remainder the effect has been wholesome. When children are convinced that parents, police, city council, boards of education, and teachers, are all united in their efforts, not only are the evilly disposed checked, but the well disposed are encouraged and strengthened.

"There has been some disposition to doubt whether a conviction could be secured without establishing a separate ungraded school. The board was willing to ask for the appointment of a truant officer, but was not willing to incur the expense of an ungraded room. Experience has shown that such expense was unnecessary, except, perhaps, for the purpose of enforcing the law. If the law could be so amended as to remove all doubt as to the power of school boards to enforce the law without establishing ungraded rooms, it seems to me that an improvement would be made."

The following reply was received from Superintendent J. M. B. Sill, of Detroit:

"I offer the following statements in answer to your questions concerning the workings of Act No. 144, Laws of 1883. The following numbers correspond with those of your queries:

"1. Our board has taken no steps looking to the enforcement of the general compulsory law, viz.: Sections 1, 2, 3, 4, 5, 12 and 13, of the act mentioned above.

"2. We opened an ungraded school on October 8, 1883. Up to this time we have enrolled in it 139 pupils. These have been disposed of as follows:

"Sent back to other public schools	27
"Sent to the State Reform School	10
"Allowed to go at work	27
"Passed the limit of age	25
"Belonging at date	50
	139

"In the month of May the average number belonging was 58, and the average attendance 51. For several months two teachers have been employed.

"3. The police authorities have detailed, for the purposes of the law, two excellent truant officers.

"4. There have been eleven prosecutions under the law, and ten boys, either truants or incorrigibles, have been sent to the State Reform School.

"5. I cannot give figures in answer to this question. It is certain that many boys disposed to truancy or incorrigibility, are conducting themselves properly in the public schools on account of the preventive power of the penalties provided for in this law.

"6. The enforcement of the law has had a salutary effect upon regularity of attendance and good order in the public schools, and has largely decreased the amount of juvenile criminality in the city.

"7. The law affecting juvenile disorderly persons should stand by itself, having no connection whatever with the general compulsory law as stated in sections 1, 2, 3, 4, 5, 12, and 13. The age limits prescribed in the law should be 8 and 14 years. The definition of a juvenile disorderly person needs careful revision. The expression 'Who absent themselves from school,' in sec. 7, is an unfortunate one, since it seems to apply only to persons who are due at school under the general compulsory law. (See section 1.) The definition should plainly include all persons between the ages named who *are not in attendance at school* and who 'habitually wander, etc.'"

A very general criticism of the law is the provision limiting the establishment of ungraded schools to cities of five thousand inhabitants or more. As the most vital portions of the act seem to be accessory to the section containing the above provision, the school boards in many of the smaller towns and cities, who would gladly take advantage of the law, are deterred from taking any action, because of their lack of authority to enforce its provisions. Referring to this apparent defect, O. C. Seelye of Owosso writes: "I think that the privilege of an ungraded department should extend to towns of less than 5,000. There are certainly enough who *ought* to be in such a school in this city, but whether we could get such a school or keep the pupils there is another question."

H. M. Enos of Cadillac says: "That section of the law which provides that towns having 5,000 inhabitants may organize ungraded departments and compel attendance, etc., has been construed by our board to debar those of a less number of people from taking advantage of the law by appointing truant officers and proceeding in accordance with the subsequent sections."

G. P. Glenn of Marshall writes: "We have felt that cities of less than 5,000 inhabitants should be *allowed* by statute to organize ungraded schools if the school authorities deem best. Such a school would be as profitable to Marshall as to Detroit and just as feasible."

Industrial Education.

The question of giving manual and industrial instruction in the public schools of this country is one which of late has received considerable attention from school authorities and educators. There is evidently a growing sentiment in favor of training the hand and eye of the child, as well his as mind, in the public schools.

Just how far or in what direction the schools should go in manual education, is an unsettled question. It is a subject that should receive intelligent and careful consideration, before any decided action is taken to construct such an annex to our scheme of public education.

There are extremists in every business. The teaching profession is no exception to the general rule. One need go back but a few years to find a class of educators who were for eliminating technical grammar from the school room and substituting language lessons. Another class would teach reading to beginners by the word method only. Another would discard every text-book from the class-room and impart instruction without the means of such assistance. The new idea at the present time is *industrial education.*

I am not one to oppose any means that will give the pupil the best possible training while in school, or that will best prepare him for the practical affairs of life after his school days are over. The question of industrial education in

the common schools is a new one, and by some educators it is quite liable to be pushed to an extreme.

There is no doubt but that a limited amount of manual drill would result beneficially to most pupils, but when the extent and character of it are considered then the perplexities of the question begin to show themselves. If nothing but carpentry is taught, then objection is brought, on the ground that all do not expect to become carpenters. If only shoemaking is taught, it would still fail to satisfy the majority, for but few would follow shoemaking. So it would be with the trade of the tinner, blacksmith, mason, painter, or clock-maker; but few persons in the school would be accommodated by having only one of these trades taught. If manual training is to be given, then the question as to its character arises at once. But the advocates of this school-work say that it is not proposed to teach the pupil a trade. Only general principles or rudiments are to be taught. Let it be so. The father who wishes his boy to become a shoemaker, may require that he be instructed in the rudiments of shoemaking as consistently as the parent who expects his son to become a carpenter, asks that he be taught the first principles of carpentry. So on for each trade in the list. Here we see, then, that it is impracticable to attempt instruction in *all* trades, and quite as much so to require every pupil in school to get an elementary knowledge of the *same* trade.

An industrial class was formed in the Dwight school, Boston, in 1881. They continued their work during the year in connection with the regular studies of the school. The report of the superintendent shows that they maintained their standing in the regular school work. In the industrial department, instruction was confined to carpentry. The work done by the pupils embraced such things as driving nails, planing and straightening boards, handling the saw, boring holes, and making tenons and mortises.

It will be seen that the work accomplished in this school is but little more than any boy, with a taste for handling tools, could have learned at home. The teaching could not be carried much farther without going into the technicalities of the trade, which, it is claimed, is not the purpose of these schools. If the teaching, then, is not to be technical, and is confined to the limited use of the tools indicated above, it seems to me that the benefits to be derived from this school work will not guarantee the outlay required in the establishment of industrial departments.

The advocates of industrial training in the schools expect it to be given only in the graded schools of the larger towns and cities, since in the smaller places and rural districts, boys and girls are obliged to engage in various kinds of manual labor at their homes.

The complaint against the higher departments of the city schools now is that they are attempting too much, that too many branches are placed in the course of study. This being the case, the addition of manual training would increase the amount of work in the high schools, and give farther cause for unfavorable criticism.

The tendency among educators at the present time is towards a reduction of the number of studies taught in these schools, but those usually placed in the course seem so essential that there is a difference of opinion as to which should be eliminated. The introduction of manual instruction in the schools under the above circumstances, would compel the abandonment of studies necessary to good scholarship and good citizenship; and muscular culture would encroach upon that more *legitimate* work of the school, mental culture.

The manual training for girls would, of course, differ in character from that referred to above. Although it might often be convenient for a young lady to be able to drive a nail, yet there is no particular advantage to be gained, under present social customs, in her learning to shove a jack-plane or to bore a hole.

The industrial training that would be valuable to a large majority of the girls in school must be that pertaining principally to household affairs. The best place for a lady to learn to dress and roast a turkey, or knead and bake a loaf of bread is in her mother's kitchen. In the sewing-room she can best learn to cut and fit a garment or darn her stockings. So on with the whole category of domestic affairs.

I can see no reason for burdening the public schools with these matters, or for incurring the expense which such special instruction would involve, since the more practical lessons and the more thorough instruction in household duties can be received in the home of nearly every girl.

There is but slight cause for asking that industrial education be given in the public schools on the ground that a knowledge of the use of tools will be of essential value to the pupil. This knowledge, as noticed before, is necessarily confined to first principles and within narrow limits. When it goes beyond this it becomes technical; but the advocates of industrial education do not propose that trades shall be taught in the schools.

Most pupils are still young when they graduate from the high school, and they will yet have time during their minority to gain a fair knowledge of those trades to which inclination or necessity may lead them.

In the higher institutions of learning industrial education finds a more appropriate place than in the lower schools. The mental faculties of the college student are somewhat matured, and he is of an age to make an intelligent choice of such studies as will best prepare him for the profession or occupation upon which he is about to enter. Yet in the college and university only general principles in the mechanical arts should be taught. Anything farther than this properly belongs to those schools established for the purpose of giving technical instruction in the science of trades.

If there is any substantial advantage to be derived from manual training in the public schools and higher institutions of learning, it must be realized in the *directive* influence it has upon the after life of the pupil. A rudimentary knowledge of the use of tools and the principles of mechanics will be, in itself, of but little value to the student. It is the tendency that industrial education may have to lead young men and women into productive pursuits that will commend its adoption into our educational system. When it can be shown that manual-labor education will fill the ranks of the workers with better trained intellects, then it will receive my hearty endorsement.

The demand for manual instruction in the schools has arisen from a false notion that the education which they now give is too impractical; that it unfits rather than prepares a young man for labor employments. The latter statement has already been noticed in a previous discussion. As to the present school work not being practical, it depends upon what is to be understood by a *practical* education. If man is to be considered a mere producer of wealth, a "a bread-winner," a machine for the accumulation of the products of labor, then it may be considered impractical, as far as *immediate* results are concerned. It is capable of demonstration, however, that intelligence saves where ignorance destroys, and that cultivated intellect, in the long run, is a greater factor in the accumulation of wealth than cultivated muscle.

A leading educator of Pennsylvania recently said to me that he called upon the proprietor of a large manufacturing establishment, not long ago, to question him upon the subject of manual instruction in the schools. This gentleman said: "What is most needed among my employés is better trained intellects. Give me operatives with a liberal mental culture and I care not for their manual training. Such persons are quicker in comprehension, and readily adapt themselves to every kind of work connected with my business." I have no doubt that the same testimony in favor of higher education could be obtained from the managers of almost every business enterprise.

But there is a higher standard for measuring intellect. The value of an education is not to be determined in dollars and cents. The individual must be something besides a slave to labor and a worshiper of wealth; he must be a *man*. He is a member of society, the head of a family, the citizen of a State. As such he should receive that moral and intellectual culture that will enable him to add refinement to the society in which he may be placed; that will lead him to govern and train his children aright; and that will give him the intelligence to understand wisely and to obey cheerfully the laws of his country.

The cultured man has the most practical education possible. He has learned to read and to think for himself; to study causes and to understand their effects. His intelligence will not submit to the thralldom of designing demagogues. He asserts his independence in the management of his own affairs, and becomes the possible architect of his own fortune. He is better prepared for enjoying the pleasures of life, and better fitted for the responsibilities of citizenship.

TEACHERS' INSTITUTES.

The success which has generally attended the various institutes held during the past year, both in the matter of attendance and the excellence of the instruction given, has been very gratifying. While the number of institutes held was less than the previous year, the enrollment was slightly increased. Still the attendance is not as large as it should be. The number of teachers necessary to supply the schools in the sixty-four counties in which institutes were held was 8,853, while the total enrollment was 5,650, of which number only 4,463 were legally qualified teachers. The enrollment shows a marked decrease in the attendance of teachers holding higher grade certificates, and a still larger increase in the attendance of those holding third grade certificates, showing that the institutes are reaching that class of teachers most in need of normal instruction.

There is a very general sentiment among instructors in favor of longer sessions and more academic work. A five days' session is too short to admit of any practical application of the theories presented, and if class work is desirable, as a large majority of the instructors claim it is, the time should be extended as recommended. The experiment of holding a two weeks' institute, whenever tried, has met with almost unanimous approval, both from teachers and instructors.

I most heartily concur in the expressions of approval bestowed by my predecessors upon the high character of our institute workers. The work done by them during the past year has been of great benefit in elevating the character of the teachers of the State, and the general educational sentiment in localities where institutes have been held has been largely extended. The evening lectures have generally been well attended by citizens as well as

teachers, and their influence in arousing public interest in the schools has been commended by the local press.

At a State institute held at Lansing in July last, the manual of institute work was revised and enlarged in accordance with suggestions from the most experienced educators in the State to whom the work of supervision had been intrusted. The revised manual, which is printed in full in the accompanying documents, will form the basis for the work of instructors for the succeeding two years. As indicating the views of those best informed in the character and needs of institute work, I submit the following extracts from the reports of conductors for the past year:

R. W. Putnam.—On the whole I pronounce the experience (of longer sessions) a decided success. It is well worth our while to study well the best methods of holding longer institutes. The question, I feel, is worth investigating, and if properly solved will add much to the efficiency of our common school teachers. I think the object we should have in view should be the developing of a line of study in the minds of the teachers and the urging them to pursue a more extended course themselves. Many of them know nothing of real school work, and this "summer school" ought to be a revelation to such of what they can do for themselves if they will only try.

W. S. Perry.—Institutes ought to be made more practical. The instructors scatter much good seed, but I fear little of it takes root. I think we must extend the sessions, contract our lines (topics), and get right down to personal work—class work. The numbers in the institute would be smaller, but the aggregate good would be greater.

Charles Kelsey.—It is desirable to change as rapidly as possible from the lecture system to class work and to have the institute held at least two weeks.

J. R. Miller.—I am of the opinion that the time is not far hence when the institutes will have to do more academic work in connection with normal work.

H. R. Pattengill suggests that the county examiners be especially requested to attend the institutes and to take notes upon which to found questions for examinations that may follow.

N. H. Walbridge.—I believe that, notwithstanding the call for longer sessions, it would be unwise to make a change except in special cases. The schools of Michigan have been so largely improved that it would seem unwise to abandon the means that have in so large measure brought about so desirable a result.

J. Estabrook.—I know of no more important change demanded than an extension of time to two weeks. It would add at least 150% to the efficiency of the work. A portion of the work should be done in class drill, and the best methods of instruction should be illustrated in actual practice in the class.

J. W. Ewing.—I would only suggest that if it were possible to hold institutes in the northern counties of two, three, or even four weeks in length, it would meet a want severely felt in that portion of the State. The teachers need regular text-book instruction.

P. A. Latta.—So far as practicable the work should be illustrative. Make the work as specific as possible. Too much is usually attempted. The work is frequently too general. The institute should represent the best of school room work.

At the last session of the Legislature a change was made in the law referring to teachers' institutes, looking towards their better support and patronage.

It was found that the fund raised by examination fees for institute purposes was inadequate to meet the expenses of a large number of the institutes. This was especially the case in the newer counties, even after the full amount of State aid had been granted.

Under the original law, only teachers receiving certificates from the county board of examiners were required to pay the fee. As amended the law requires each applicant for a certificate to pay the fee at the time of making the application. It also requires persons holding Normal and State certificates, and teachers licensed by school boards, to pay an annual fee to the secretary or director of the board at the time of making the contract to teach in the public schools. By this means the institute funds have been materially increased in the older counties, and, with the amount appropriated by the State, it is thought that but few deficiencies will occur in the future.

Another change in the law is that which allows a teacher, whose school is in session at the time of holding the institute, to close the school and attend the institute, without forfeiting his wages for the time during which he is in attendance. This applies to schools in the county or counties for which the institute is held.

This provision of the law, so far as I can learn, has met with but little opposition. School authorities have generally acquiesced in this feature of the law, believing that attendance at the county institute results not only in a personal benefit to the teacher, but in a direct advantage to the school where he may be engaged in teaching.

Comparative Statistics.

Several interesting facts relating to the condition of the public schools for the years 1882 and 1883 are given in Table I. The number of school districts in the State shows an increase of 89 over 1882, while the number of districts which maintained school was 94 in excess of the previous year. The number of children of school age at the last census was 560,730, an increase of 22,374 over the preceding census. The increase in school attendance is by no means proportionate to the growth in population, the total enrollment showing an increased attendance of only 6,106 for the year 1883. While there has been an increase of over 4% in the number of children of school age, the attendance has increased but 1½%. The falling off has been wholly in the ungraded schools, the graded schools showing an increased attendance of 9,128, or nearly 6%. This apparent decrease in the country schools is, I am satisfied, not altogether real. The loose system of keeping records and the lack of care and thoroughness on the part of district officers in preparing their reports, render the returns of the enrollment not perfectly reliable. If the distribution of the public money was made contingent upon the attendance, the result would be a marked increase in the enrollment.

The average monthly wages of teachers in both graded and ungraded schools show an increase over 1882. The average monthly wages paid in graded schools for the year was $75.19 for men and $37.56 for women, and in the country schools the average was $34.05 for men and $23.97 for women. The principal increase in the wages paid *men* teachers has been in the *ungraded* schools, averaging $3.14, while the *women* teachers of the *graded* schools have enjoyed an average increase of $4.20.

There were 161 less men employed as teachers during 1883 than during the previous year, while the number of women so employed had increased 531, showing a net increase in teachers employed of 370.

That portion of the statistics referring to the examination and certification of teachers furnishes a gratifying indication of the improvement in the character of teachers. The number applying for regular certificates was 13,172, an increase of 1,790, while the number of regular certificates granted was 8,719, an increase of 245. There were 129 less licenses issued to persons without previous experience in teaching, while the number holding State and normal school certificates had increased 79. Of the 13,172 applicants, 2,244 had received normal instruction, an increase of 249, and 662 more of those applying had attended teachers' institutes during the year than in 1882. These facts imply greater thoroughness in the examinations, and a more general disposition on the part of teachers to avail themselves of the advantages offered them for normal instruction.

The value of school property in the State increased $587,367 during the year, aggregating $10,435,860. The total number of school houses in the State is reported at 6,890, affording sittings for 485,386 scholars. While the total sittings exceed the total enrollments by 93,776, in many of the larger graded districts the accommodations are inadequate. The increase in the enrollment in the graded schools was 9,128, while the increased accommodations in all the schools was only 9,314.

The financial condition of the districts, as reported, presents a favorable showing. The increase in receipts has been $591,593.52, while the excess of expenses over the previous year has been only $470,581.83, or an increase of $121,011.69 in the amount on hand at the end of the school year. The balance on hand at the beginning of the present year was $177,817.63, or $44,447.36 more than the increase in the total indebtedness of the districts, although $140,124.40 more was expended for building and improvements in 1883 than during the previous year.

The statistics relating to school libraries show a decrease of 48 in the number of libraries, while the number of volumes has increased 34,548, or nearly 12 per cent. The falling off in the number of libraries is owing principally to the consolidation of district into township libraries. As districts of less than 100 scholars are prohibited from participating in the distribution of library moneys, the libraries in most of such districts are being absorbed by the township library. I am pleased to note a growing appreciation of the value of this important adjunct to educational work, and a general disposition, especially among the officers of the larger graded schools, to make liberal appropriations for the establishment and maintenance of school libraries.

Educational Funds.

The Primary School Funds.

The moneys derived from the sale of school lands, and from escheats to the State, constitute the Primary School Fund *proper*, and bear seven per cent. interest. One-half the cash avails of the sale of swamp lands are also set apart as a school fund, bearing five per cent. interest, and this is called the Primary School five per cent. Fund. The income derived from each of these funds, together with the surplus of specific taxes remaining in the State treasury, after paying the interest on the several educational funds, and the interest and principal of the State debt, forms the Primary School Interest Fund, the entire amount of which, that may be on hand at the time, is apportioned to the school districts of the State about the first of May in each year.

The condition of these funds for the fiscal year ending September 30, 1883, is shown in the following statement:

Primary School Fund:	
In the hands of the State	$3,064,078 34
Due from purchasers of lands	329,036 90
Total seven per cent fund	$3,393,115 24
Interest paid by the State	209,875 91
Interest paid by holders of lands	26,401 84
Total income	$236,277 75
Primary School Five per Cent Fund:	
In the hands of the State	344,194 31
Income	17,075 70
Total school funds	$3,737,309 55
Total income from both funds	253,353 45
Surplus of specific tax transferred	483,448 03
Total Primary School Interest Fund	$736,801 48

The University Fund.

This fund is derived from the sale of lands granted to the State by the General Government for the support of a university, and draws interest at seven per cent. The amount to the credit of this fund, September 30, 1883, together with the income derived from the same, is as follows:

In the hands of the State	$493,401 32
Due from purchasers of lands	50,750 34
Total fund	$544,151 66
Interest paid by the State	$34,352 09
Interest paid by holders of lands	4,372 51
Total income	$38,724 60

The Agricultural College Fund.

This fund, derived from the sale of lands granted by the State and by the General Government for the support of the college, draws seven per cent interest. The state of the fund at the close of the last fiscal year was as follows:

In the hands of the State	$258,524 53
Due from purchasers of lands	152,318 56
Total fund	$410,843 09
Interest paid by the State	$16,741 38
Interest paid by holders of lands	9,461 10
Total income	$26,202 48

The Normal School Fund.

This fund, bearing six per cent interest, is derived from the sale of salt spring lands granted by the State for the support of a normal school. The condition of this fund and its income at the close of the fiscal year was as follows:

In the hands of the State	$60,865 45
Due from purchasers of lands	8,260 59
Total fund	$69,126 04
Interest paid by the State	$3,622 12
Interest paid by holders of lands	661 98
Total income	$4,284 10

State Institutions.

The University.

The past year has been one of unusual prosperity, both in material improvements and in added facilities afforded by the broader plan of University instruction which was adopted the previous year. The completion and dedication of the new Library Building marks one of the most important events in the history of the institution. This elegant structure is a most fitting monument of the pride felt by the people of the State in the University, and their wish to follow a liberal policy in supplying the means necessary to meet its growing needs. The promptness with which the Legislature has always responded to the appeals of the regents for aid, is the most gratifying evidence of the popular appreciation of the good work it is doing for the State.

Nor has the State been the only generous benefactor of the University. The many liberal gifts from private individuals have added very materially to its resources. These bequests are appropriately acknowledged in the report of President Angell. No more inviting field for the exercise of private beneficence is offered to citizens of Michigan than the Library, Art Gallery, or various Museums of the University, and it is to be hoped that the increased protection offered to contributions of this character will stimulate others to action in this direction.

A number of changes in the faculties during the year are noted. In the death of Prof. Cocker the University sustained a serious loss. For the fourteen years that Dr. Cocker was connected with the University his kindly interest in and moral influence over his pupils made his presence a constant inspiration to a higher and nobler living. Both as Professor and as a writer of philosophical works he has added greatly to the reputation of the University which he served so long and so faithfully.

The chair rendered vacant by the death of Dr. Cocker, has not yet been filled. Rev. Jacob Cooper, D. D., Professor of Greek in Rutger's College was called to the chair, but he declined the invitation. Instruction in Psychology, Logic, and Speculative Philosophy has been given during the year by Prof. George H. Howison, LL. D. Other changes in the faculty are noted in the President's report.

The total attendance of students was 1,440, showing a small decrease over the previous year. All except the Literary Departments show a decrease, which is attributed to an increase in the fees charged. The number of resi-

dent graduates has nearly doubled, a very significant indication of the increased facilities for advanced study.

The additional requirements for graduation that have heretofore been made in the Literary and Medical Departments have been extended to include the Law Department, by lengthening the course to two terms of nine months each. This leaves the Dental School the only department which has a short term, and the suggestion of President Angell that this school should be put upon the same footing as the other departments seems to be a very proper one.

Nearly every department is in need of added facilities for enlarged work. In some the apartments devoted to practical experiment are too limited, or are poorly located for the increased work that is required to be done. In others more instructors are demanded. As President Angell aptly expresses it: "The University is fulfilling the indispensable condition of prosperity by seeing its wants outrun its supplies." While it may not be wise to attempt to establish new departments, there can be no question as to the necessity of maintaining the efficiency of those already established, and the suggestions of the immediate needs of the University embodied in the President's report should receive careful consideration and liberal treatment.

A matter of grave importance to the permanent interests of the University is the insufficiency of the income from productive funds to meet even the temporary needs of the institution. Some measures should be taken to increase these funds, for while I do not consider it advisable that the University should be entirely independent of Legislative aid, a sufficient amount should be at the disposal of the Board of Regents to enable them to meet the pressing needs demanded by a constant growth. This matter is referred to by the President as follows: "We are warned by the condition of our Treasury that, unless some permanent addition to our resources is furnished, we must resist all temptations to add any new departments of work to the University. Our general fund sorely needs either enlargement or some relief from the drafts upon it. It is subjected to an increased drain by the appointment of every new instructor (except in the Homœopathic and Dental Colleges) and by the addition of every new building, which is to be lighted, heated, and kept in repair. If some of our Professorships could be endowed, a substantial relief would be afforded to this fund, which is proving inadequate to the increasing burdens it now has to carry."

A very exhaustive showing of the condition of the University is contained in the reports of the President and the Board of Regents, which, together with the report of the ceremonies attending the dedication of the Library Building, are published in another part of this volume.

At the last session of the Legislature, when the appropriation bills for the State educational institutions were being discussed, it was asked what these institutions were doing; what advantage were they to the State at large, or to the individuals who attended them; were they fulfilling the purposes for which they were established; were they preparing young men and women for useful professions and occupations; and were these young men and women entering upon the work for which these institutions were designed to fit them, or upon such other honorable occupations as would guarantee the outlay made by the State for their education? These were pertinent questions, and they called for intelligent and unbiased answers. They were asked with more special reference to the Normal School and Agricultural College.

Appended to the article upon each of the three State educational institu-

tions in this report: the University, Normal School, and Agricultural College, will be found a statement showing the present occupations of those who graduated during the ten years beginning with 1870.

The following table of occupations of university graduates was arranged from reports as found in the Michigan University Book, published in 1881:

Table showing the Occupations of 2,992 Graduates of the four Departments of the University of Michigan for the Ten Years ending July 1st, 1879.

Occupations.	Literary Department.					Medical Department.	Law Department.	School of Pharmacy.	Total for all Departments.
	B. A.	B. S.	Ph. B.	C. E.	Total Lit. Dept.				
Physicians	21	7	6	2	36	681	2	34	753
Civil Engineers	3	3	1	70	77	------	1	------	78
Clergymen	23	1	3	------	27	------	3	------	30
Lawyers	133	28	37	2	200	------	1,168	2	1,370
College Professors	27	4	5	6	42	------	4	------	46
Business	33	8	17	15	73	------	19	2	94
Teachers	70	20	16	6	112	------	4	2	118
Superintendents City Schools	21	2	6	1	30	------	1	------	31
Journalists	9	2	4	1	16	------	15	------	31
Bankers	7	1	2	1	11	------	4	1	16
Farmers	2	7	------	2	11	------	4	4	19
Architects	------	------	------	8	8	------	------	------	8
Artists	------	------	1	------	1	------	------	------	1
Druggists and Pharmacists	------	------	------	------	------	------	------	151	151
Assaylsts	------	------	------	------	------	------	------	1	1
Book-Keepers	------	------	------	------	------	------	1	------	1
Unknown	35	8	13	4	60	181	------	3	244
	384	91	111	118	704	862	1,226	200	2,992

It will be seen from the above table that there were 2,992 graduates from the University during the ten years mentioned. Of this number, 704 graduated from the Literary Department, 384 taking the full classical course. A majority entered the professions of the law and teaching, 200 engaging in the former, and 184 entering upon school work. The classical course furnishes a large proportion for almost every occupation reported. The occupations of only 60 of the 704 are reported as unknown. Graduates from the Medical Department seem to have taken entirely to the practice of medicine, while graduates from the law and pharmacy schools have entered fourteen different occupations. Of the 2,992 graduates, 2,748 are put down as engaged in some honorable calling, while the occupation of only 244 is reported as unknown.

Normal School.

The extent to which the influence of the Normal School is entering into the educational interests of the State, and the value placed upon normal training, are shown in the tables compiled from the reports of secretaries of county boards of examiners. It appears from these reports that 2,244 applicants for certificates, or over 17 per cent of the total number, had received normal instruction. The number of teachers in the State holding Normal School certificates is reported as 261, being an increase of 37 per cent over the preceding year. These statistics certainly imply that this institution is accomplishing its mission: to elevate the standard of teachers throughout the State.

The report of the Acting Principal shows an attendance during the year of

398, being 68 in excess of the attendance for the previous year. The act of the Legislature of 1881, restricting the employment of poorly qualified teachers, has undoubtedly been instrumental in reviving the interest in normal instruction; and now that the *profession* of teaching has been recognized by the State, and some inducements have been offered for a more thorough preparation for the work of teaching, we may hope to see those who adopt this profession required to go through a similar course of preliminary training to that required in the professions of law and medicine. This preparation the Normal School was especially established to furnish, and with the enlarged opportunities for more efficient instruction, and greater inducements for a more thorough preparation on the part of teachers, the future of this institution is full of promise.

The accession of Hon. Edwin Willits to the principalship has been received with very general satisfaction. The wisdom of the Board of Education in selecting a gentleman of such varied attainments as Mr. Willits possesses, although not a professional teacher, is shown by the zeal and earnestness which have thus far characterized his administration.

The Board of Education very justly commend in the highest terms the admirable manner in which Prof. Daniel Putnam performed the very difficult duties of acting principal. Under his efficient management the school has grown both in character and attendance. Owing in a great measure to the wise and careful administration of Prof. Putnam, Principal Willits enters upon his work under the most favorable auspices.

Four additional instructors have been appointed during the year, affording much needed means for more efficient instruction. The only vacancy in the Board of Instruction is the chair of English Literature and Language, made vacant by the transfer of Prof. Austin George to the directorship of the Training School. The Board of Education expect to be able to fill this vacancy in the near future.

The reports of the Board of Education and the Acting Principal are very full and complete, showing the school to be advancing both in the thoroughness of instruction and the number of students.

The present condition of the school indicates that it is steadily gaining in popularity throughout the State. The common school course has been wisely abolished, although it shut out a considerable number of students. Notwithstanding this change, however, the number in attendance during the present year is larger than ever before. All parts of the State are represented among the students, many of whom are teachers of limited experience in the lower schools. With a competent corps of instructors, thorough discipline, and wise management, I can see no reason why this school should not retain the liberal support which it has received in the past, grow in patronage, and maintain a reputation for efficiency of work second to no similar institution.

It is sometimes charged that many of the graduates of the Normal School never engage in teaching, and that a large number of those that do, continue in this business only a short time. In answer to such charges I would call attention to the statistics given below. They are considered as quite reliable, the figures upon which they are based having been obtained, in a large majority of cases, directly from the persons themselves, in answer to a circular calling for the facts needed. The calculation covers a period of eleven years—1870 to 1880 inclusive:

1.	Number of graduates in the full courses from the State Normal School from 1870 to 1880, inclusive*	294
2.	Number who have engaged in teaching	270
3.	Number from whom no report has been obtained	10
4.	Number known not to have engaged in teaching	14
5.	Per cent. known to have engaged in teaching	92
6.	Average time taught on the basis of whole number of graduates—years	5
7.	Average length of time taught on the basis of number engaged in teaching—years	5.5
8.	Number of male graduates	126
9.	Number males known to have engaged in teaching	113
10.	Number males from whom no report has been obtained	2
11.	Number males known not to have engaged in teaching	11
12.	Per cent. of males known to mave engaged in teaching	89
13.	Average time taught on the basis of whole number of male graduates—years	5
14.	Average time taught on the basis of the number of male graduates who engaged in teaching—years	5.6
15.	Number of female graduates	168
16.	Number of females known to have engaged in teaching	157
17.	Number females from whom no report has been obtained	8
18.	Number females known not to have engaged in teaching	3
19.	Per cent. of females known to have engaged in teaching	93
20.	Average number of years taught on the basis of the whole number of female graduates—years	5
21.	Average number of years taught on the basis of the number of female graduates who engaged in teaching—years	5.4
22.	Number of male graduates known to have died	8
23.	Number of female graduates known to have died	4
24.	Total time that could have been taught if all these graduates had been teaching from the dates of their graduation to the present time; i. e., if all had at once gone to teaching, if none had died, stopped for a season, or abandoned the profession—years	2,380
25.	Males could have taught—years	1,046
26.	Females could have taught—years	1,334
27.	Time actually taught by these graduates—years	1,488
28.	Time actually taught by male graduates—years	639
29.	Time actually taught by female graduates—years	849
30.	Per cent. of actuality to possibility on the basis of the whole number of these graduates	62
31.	Per cent. of actuality to possibility on basis of male graduates	61
32.	Per cent. of actuality to possibility on basis of female graduates	63.6
33.	Number of pupils who entered school from 1870 to 1880 inclusive (estimated)	2,200
34.	Number of these who engaged in teaching (estimated)	1,650

These statistics are so fully given that they need no comment. They make a fair showing for normal instruction, and demonstrate that a large percentage

*NOTE.—From 1872 to 1880 inclusive, there were graduated from the Common School Course 94 males and 177 females; total 271. No complete record has been made up of the teaching of common school graduates; they received certificates to teach, good for three years, and the presumption is that all engaged in teaching unless prevented by circumstances.

of those who go out from the Normal School are continuously engaged in school work.

The Agricultural College.

A number of improvements have been made during the past year in the facilities for instruction in this institution. A chair of Veterinary has been established, and instruction in this science extends throughout the year. The extent to which stock raising is developing renders a knowledge of the care and treatment of stock an important part of agricultural education, and the authorities have acted wisely in providing means for obtaining instruction in this important branch.

The Department of Botany and Horticulture has been separated into two departments, Horticulture and Landscape Gardening being assigned to one professor, and Botany and Forestry made a distinct department. The large addition to the Chemical Laboratory has been completed during the year, and valuable additions to the apparatus made. By these improvements the Laboratory is now one of the largest and most complete in its facilities for practical investigation of any in the country. Efforts are being made to have the College designated as a United States Signal Service Station, which will undoubtedly be done, thus materially increasing the opportunities for Meteorological study.

The course of instruction requires a practical knowledge of the elements of the simple mechanical arts, such as are constantly needed by the farmer in the proper care of his machines and tools. Manual labor is required of all undergraduates, each pupil working four hours each afternoon. The direct practical application of the theories taught in the class-room is of permanent benefit to the student, besides affording that exercise which is necessary to the preservation of health.

One of the most commendable characteristics of this College is that it affords a liberal English education to a class of young men who would not seek it in any other institution, and at the same time tends to lead them to follow agricultural pursuits, or some other manual employment. In proof of this fact it is stated that over 80 per cent. of the students are sons of farmers, and between 50 and 60 per cent. of the graduates follow farming.

The courses of study, although including subjects especially connected with the various branches of agriculture, are arranged with the view of affording a thorough collegiate course in the natural sciences and the English branches. The *direct* aim of instruction in the College, is the general intellectual development of the students; secondarily, a study of the principles of agriculture and horticulture, and a practical application of these principles in the work performed. The course of instruction has been enlarged and reärranged with the view of allowing the student a greater choice of studies during the senior year.

The system of holding Farmers' Institutes in various parts of the State, under the auspices of the State Board of Agriculture, has been continued the past winter. These meetings are productive of much good, both in the valuable information on agricultural topics disseminated throughout the State, and in impressing upon the farming community the advantages accruing from technical education.

The annual report of Secretary Baird furnishes a detailed statement of the condition of the College, and the changes and improvements that have been

made during the year. The report shows the College to be in a prosperous condition, with increased facilities for better work than has been possible heretofore.

Below is given the table of occupations of graduates, as made from the report of occupations given in the College Catalogue for 1881–82:

Table Showing Present Occupations of State Graduates of the Agricultural College for the Ten Years including 1879.

Occupations.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	Total.
Architects	------	------	------	------	------	------	------	------	1	------	1
Farmers	2	2	3	6	8	7	12	5	12	10	67
Lawyers	2	1	------	2	3	5	1	1	2	2	19
Physicians	1	1	2	1	2	------	------	4	2	------	13
Horticulturists	2	------	------	------	1	------	1	------	1	1	6
Druggist	1	------	------	------	------	------	------	------	------	------	1
Merchants	1	------	------	2	------	------	1	------	1	1	6
Superintendent Schools	------	1	------	------	------	------	------	------	------	------	1
Journalists	------	2	------	------	------	------	1	------	------	------	3
Banker	------	1	------	------	------	------	------	------	------	------	1
Real Estate Broker	------	------	------	------	------	------	------	------	1	------	1
College Professors	------	1	------	1	1	------	------	2	3	1	9
U. S. Signal Service	------	------	------	1	------	------	------	------	------	------	1
Civil Engineers	------	------	------	2	------	------	------	------	1	------	3
Teachers	------	------	------	------	2	1	------	1	1	------	5
Apiarists	------	------	------	------	1	1	------	------	------	1	3
Carpenter	------	------	------	------	1	------	------	------	------	------	1
Manufacturer	------	------	------	------	------	1	------	------	------	------	1
Clerks	------	------	------	------	------	------	------	1	2	1	4
Clergymen	------	------	------	------	------	------	------	1	1	------	2
Unknown	------	------	------	------	1	------	1	------	------	------	2
Total	9	9	5	15	20	15	17	15	28	17	150

From this table it may be seen that nearly 45 per cent. of the graduates are engaged in actual farming, and that over 56 per cent. are in agricultural pursuits. A large number of boys enter the College, but do not finish the course, pursuing their studies a year or two and then going back on to farms. I am informed by those connected with the College that, of all who enter this institution, between 80 and 90 per cent. engage in the business of agriculture.

Institution for the Education of the Deaf and Dumb.

The increase in the number of deaf-mutes necessitated additional accommodations for their instruction, and a large addition to the main building has been erected, and is nearly complete. During the year the offices of principal and superintendent have been united. The report of the superintendent indicates that the institution is performing its mission satisfactorily to the State. The system of instruction followed is necessarily of a two-fold character, intellectual and industrial. The impossibility of employing the ordinary means of communication necessitates a familiarity with some trade before leaving the school. The effect of this industrial training is shown in the fact that every boy who has gone out from the institution is self-supporting. Not one of them has become dependent upon public charity. The courses of study pursued correspond nearly to the first seven years in our graded schools. Drawing and artistic painting might be profitably added to the subjects taught, and might develop in some the ability to follow some one of the many occupations that require a knowledge of one or the other of these arts. The facilities for object teaching, which is the only method that can be successfully em-

ployed in instructing deaf-mutes, are not as complete as they should be. More charts and models should be provided.

Communication by signs, the most natural means of intercourse among deaf-mutes, is but little used, as a dependence upon that method unfits the pupil for dealing with those outside of the institution. Instruction is imparted mostly by writing, and through the medium of the deaf-mute alphabet. As a rule the pupils are more proficient in the study of history and civil government than in grammar, arithmetic, or geography. They are particularly apt in picking up the current news, and are usually quite familiar with current political events.

Very important improvements in the sanitary condition of the building are being made, and adequate fire escapes have been provided throughout. A full account of the general condition of the institution is given in the report of the superintendent.

School for the Blind.

The accommodations for pupils have been materially increased during the past year by the erection of new buildings, so that the school has facilities for caring for 145 students. The enrollment during the year was 68, a slight increase over the previous year. The policy of the school to furnish instruction in certain industries as a means of self-support, as well as intellectual and moral training, has proved most gratifying in its results. As usual, music offers the strongest inducements and promises the most practical benefit. Two teachers are employed in this branch, and 35, or more than half of the entire enrollment, have received instruction. The girls receive instruction in sewing and fancy work, attaining remarkable proficiency both in hand and machine sewing. The leading industry, however, is broom-making. A valuable addition to the library was made during the year, but it is still inadequate to meet the growing wants of the school. There has been no change of importance either in the corps of officers and teachers, or in the courses of study. The subjects taught cover about the same ground included in the first seven years in our graded schools. The Superintendent reports the work of the school the past year as satisfactory in every particular.

Reform School.

This, the oldest of the reformatory institutions of the State, continues to maintain the reputation of being a model institution of its kind. Many needed additions and improvements have been made to the buildings during the past year, rendered necessary by the increase in commitments, the number of inmates during the year being 553. The policy of the present management is to shorten the term of commitment, and the average number of months boys have remained in the institution has been reduced from twenty-four to nineteen, the result being a large reduction in the current expenses of the institution, and as a rule it has resulted beneficially to those released. Some interesting facts are suggested in the tables accompanying the last report of the Superintendent. Of the 2,704 commitments since the establishment of the institution, 1,488 were between the ages of thirteen and fifteen inclusive, and 796 were received during the months of July, August, and September. This latter fact indicates that juvenile crime prevails more largely during that portion of the year when the public schools are not in session, and that, to a certain extent at least, the school is a preventive of crime among the youth of the State. A proper enforcement of the provisions of the compulsory educa-

tion act, will undoubtedly prove a powerful agent in reducing the number of commitments to the Reform School. Idleness and lack of proper restraint are unquestionably the leading incentives to commission of crime by the young, and these evils can be, in a great measure, mitigated by a general enforcement of the law.

The farm connected with the school affords opportunity for healthful and profitable work for the boys, besides creating a taste for agricultural pursuits that induces many of the boys, when released, to seek the country, thus avoiding the temptations for returning to evil ways that surround this class in the city, It is the policy of the present Superintendent to foster and encourage a disposition for this kind of work, and the reports from those who, after being released, have sought and obtained country homes show a more general tendency to permanent reformation, than with those who return to the cities and towns. The following extracts from the last report of Superintendent Gower, indicates the character of the industrial and scholastic work of the institution:

"All the boys of the institution are in school an average of four and a half hours five days of each week, and work the same length of time each day. On Saturday afternoons the boys play on the yard. The entire work of the institution, including the farming, house-cleaning, dining-room work, preparation of food, making and repairing of clothes, bedding, and shoes, together with the work in the engine-room and laundry, is done by the boys, under the direction of competent overseers. The smaller boys are, for the most part, employed in chair-caning. I hope that we may soon be able to introduce some mechanical industry, which will be of more practical value to the boys in after life than chair-caning, which is valuable only as a means of keeping the boys from idleness, in addition to bringing in a revenue of about $5,000.00 a year.

"Most of the boys in coming to us are very backward in their studies, many even being entirely unable to read or write. It is our intention to give to each boy a fair knowledge of the common English branches before he leaves us, except when he is to go to a home where he will have an opportunity to attend school. I have never seen in any school so rapid progress made by any pupils as with us. This is not on account of any superior advantages which we possess in the way of imparting instruction, but is attributable entirely to the fact that we have a regularity of attendance upon school work which cannot be attained in the public school."

The Sabbath services include Sunday-school in the forenoon, and religious services at the chapel at 2 o'clock. Every Sunday a number are selected who attend some one of the city churches.

But few attempts to escape have been made under the present management, and while all are required to conform strictly to the regulations prescribed, these are not in any way oppressive or harsh, and the character of the school as *primarily* a reformatory, and not a penal institution, is carefully observed.

Industrial Home for Girls.

Though one of the last established, this institution is one of the most important, in the end sought to be accomplished, of any of the State reformatory schools. It is still in the experimental stage of existence, and probably the best plans in all respects have not yet matured. But the results so far attained are sufficient to commend it to the people of the State as worthy of all needed aid and encouragement. One has only to visit the school and see

the numbers of bright, intelligent young girls that are being reclaimed from the dangers of vicious associations, to appreciate the noble work that is being accomplished there. The girls as a rule are bright and teachable. There is no scholastic grading, but pupils are ranked on the basis of morality and obedient dispositions. The course of study includes the branches ordinarily taught in the grammar department of our public schools. School work occupies the afternoon, and one hour in the evening is devoted to study. The forenoon is employed in domestic duties and the acquirement of a knowledge of house-hold industries. Religious instruction forms an important part of the education of the pupils. The main object sought is to create a pure, homelike feeling and surroundings, the strongest antidote to evil inclinations and desires.

The total number under the control of the school is 139, of which number 11 are out on trial. A full statement of the present condition of the school is given in the report of the superintendent.

State Public School for Dependent Children.

Perhaps no charitable institution in the country has attracted more attention from social scientists, both at home and abroad, than the Public School at Coldwater. Michigan was the first commonwealth to practically carry out the theory that "it is easier to rear good citizens than to reform them." The institution has been commended by leading French philanthropists and social economists, and the public men of France are undoubtedly as well informed as to its plan of organization and the work it is accomplishing as the public men of Michigan. "It is in no sense a reform school. The State has such an institution; but these children have been guilty of no offenses against society. The taint of crime does not attach to them, whatever may be true of the parents of some of them. The State receives them in a condition of comparative innocency, and proposes to keep them innocent and fit them to go forth into the world as intelligent, industrious youths; not only instructed in the substantial elementary branches of a good mental and moral education, but trained to habits of industry, and acquainted with means of earning an honest living."

All dependent children in the State between the ages of 3 and 12 years are received. "They are to be maintained and educated while here, and as soon as satisfactory homes are found they are placed in them, under contracts securing good treatment." During the ten years that the school has been established over 1,200 children have been admitted, 300 of whom are still in the school. The majority of the remaining 900 are either self-supporting or are living in comfortable homes, with every encouragement to develop into good citizens. What would have been the fate of this army of children had they not received the fostering care of this noble charity?

The superintendent reports no change of importance in the general arrangement of the school, excepting the lengthening of the school session to twelve months. The present number of inmates is 315. During the year 125 have been placed in homes throughout the State. As the residence of the child at the school is only temporary, the instruction imparted is necessarily very elementary in character. Provision, however, is made for furnishing the children with a common school education, by requiring the persons to whom they are indentured to agree to send them to the public schools where they reside, for at least four months in each year during the term of the indenture.

Whether from an economic or humanitarian view, the school is one of the most deserving of our State institutions.

Penal Institutions.

Provision is made for instructing the inmates of the two State prisons in the common English branches. At the State prison at Jackson the regulations require that a school shall be maintained; that subordinate prison officers shall be assigned as teachers, who shall be under the direction of a superintendent; that a teachers' class shall be maintained; and they further provide that all applicants for appointment as prison officers must be competent to act as teachers in the prison school. The last session of the Legislature appropriated thirty-five thousand dollars for the erection of a building for the accommodation of the prison school, and thus the embarrassment occasioned by too limited quarters, that has interfered with the successful work of the school heretofore, has been removed. The present superintendent, E. M. Gardner, reports 465 convicts as attending school, each of whom recites one hour each week. The studies embrace the branches usually included in the first eight grades. Difficulty is experienced in procuring good instructors, as most of the officers have had no previous experience in teaching. The work of the school aids very materially in the maintenance of discipline in prison, besides exerting a salutary effect upon the life of the convict after his release.

At the prison at Ionia about 100 of the 450 inmates attend school. The attendance is voluntary. The results would undoubtedly be much more satisfactory if attendance should be compulsory. Sessions of the school are held one hour four nights each week. All the common branches are taught, and those who attend make fair progress. School is held in the chapel. Most of the convicts are illiterate, and have no disposition to study or improve themselves mentally. Fourteen teachers are employed, and the work of the school is a very important factor in the reformatory features of the institution, though its efficiency would be greatly enlarged were attendance required instead of being optional.

Incorporated Institutions.

The several denominational and non-sectarian incorporated educational institutions of the state generally report a fair degree of prosperity during the past year. While the State has so liberally provided for the higher education of its youth through the medium of the University, Agricultural College, and Normal School, there is still a broad field for usefulness offered to the various colleges, acadamies, and schools that have been established throughout the State by private enterprise and denominational zeal. These institutions attract a class of students who, either on account of location, or a lack of faith in the moral influence of non-sectarian schools, would not avail themselves of the opportunities offered by the State. With many the close proximity of a collegiate institution induces them to supplement a common school education with a partial or complete course in the higher branches, and on this account, if for no other reason, are these schools deserving of encouragement and help.

Another class more directly reached by the denominational institutions are the children of parents who fear to entrust them to institutions purely unsectarian. However unreasonable and groundless this distinction in the moral and religious character of schools may seem, the fact that it is the leading consideration with many is in itself a sufficient reason for the existence of

sectarian schools. And yet many of these are sectarian only in name, and the instruction given is entirely free from denominational coloring.

Many of these schools are embarrassed from want of sufficient funds. In too many cases money has been devoted to the erection of unnecessarily expensive buildings, and the funds for the support of instructors correspondingly crippled. In not a few instances the members of faculties are poorly paid and the appliances for instruction in many branches included in the curriculum are so meagre as to materially lessen the value of the instruction imparted. Of course these criticisms are not general in their application. Some of the more prominent of these institutions are admirably equipped in the character and number of instructors, and well supplied with museums, libraries, and apparatus for instruction in technical branches.

The statistical reports from these institutions, which appear in a tabulated form in another part of this report, show an employment of 126 instructors, and an attendance of 2,677 students. This number includes the enrollment in the preparatory departments. The total estimated value of grounds, buildings, apparatus, etc., is $812,973.37. The figures show an encouraging increase in these items over the amounts reported for 1872, and indicate a healthy growth and a prosperous year.

From personal inspection of the workings of a number of these institutions, and from reports furnished this Department, I am enabled to present the following synopsis of their present condition:

Adrian College.

This institution is under control of the Protestant Methodist denomination. It is managed by a board of trustees composed of thirty members, five of whom are selected from the *alumni*, five from the city of Adrian, and ten are appointed by the conference. A heavy debt and small income have impeded the advancement of the college, and while there are some capable and earnest workers in its faculty, a lack of funds has been a constant embarrassment to them. Arrangements have been made for materially increasing the fund for current expenses, and with the hoped-for addition to the permanent endowment, the prospect for an improvement in the financial condition of the institution is encouraging. The requirements for admission have been raised during the year, and a gradual advancement in the courses of study has been made. Degrees were conferred on twenty-seven graduates from the different departments. The faculty consists of thirteen members. The number of students enrolled during the year was 184.

Albion College.

President Fiske, in his report for 1882, announced that an entire reconstruction of the courses of study had been decided upon, which would practically reverse the method of teaching generally adopted. In explanation of the proposed change, Dr. Fiske says:

"We have, therefore, planned our work so as to follow nature's order in all cases in which we understand that order. In history we first look at its outcome in the condition of the world to-day, and then seek for the forces which have wrought out the civilizations which exist on the two continents. Understanding the life of the 19th century, we are prepared intelligently to trace out the causes which have produced these effects. We take up philosophy in the careful consideration of the human mind phenomenally and dynamically, determining the present accepted analysis of the soul, and afterwards turn our

attention to the history of psychological and metaphysical speculations. We teach science before the history of science.

"In language we proceed from the English to contemporaneous foreign languages, and when these have been pretty thoroughly mastered, we take up the Latin and Greek."

The practical working of such a radical change in the established order of teaching is of considerable importance to all educators, for if proved to be productive of more satisfactory results than the old plan, the question of its ultimate adoption in the common schools would be worthy of careful consideration. The experiment has been tried at Albion College for nearly a year, and its workings are thus referred to by Dr. Fiske in his report for the past year:

"About a year ago we introduced this new method with the lower classes and, so far as practicable, with classes which had already completed portions of the course upon the old plan. Anticipated results have been fully met. Quite a large number of young persons have resorted to the institution because of this system, and its value as a practical method is clearly seen. That which was theory twelve months ago is now shown to be based on sound philosophy. We have reason to expect results of the highest importance when classes have been carried through the entire curriculum."

The courses of study have been extended, and the requirements for admission raised. One year has been added to the preparatory course; the Conservatory of Music increased, and the studies of the junior and senior years made elective. The attendance during the past year was 60 in excess of 1882.

Battle Creek College.

This institution was founded in 1874 by the Seventh Day Adventist Educational Society. It has been closed for the past two years, but re-opened in September, 1883, with an attendance of 170 in all departments, including the primary grades, and a faculty comprising nine members. There are four departments of instruction, including all branches of study from the lowest elementary work to the completion of the College courses. Special importance is given to the common branches, and manual labor is to be introduced into the college system, more especially for the exercise secured and the remuneration offered to students, than for the purpose of technical instruction. Studies are elective under certain restrictions. Vocal and instrumental music are included in the branches taught. It has been decided to expend $15,000 in the erection of dormitories.

Detroit College.

This institution was organized in 1876 by members of the Society of Jesus, and incorporated in 1881. While the members of the faculty, and a majority of students are members of the Roman Catholic church, pupils of all denominations are admitted. The courses of study include three departments, the Academic, the Scientific-Collegiate, and the Commercial. The first answers to a three-years preparatory course, and the last two require four years to complete them. The degree of B. A. is conferred upon graduates in the Scientific-Collegiate course. The College has grown steadily since its organization. Its faculty comprises ten members and the attendance numbers 200. The first commencement was held in June, at which time the degree of B. A. was conferred upon six graduates.

Hillsdale College.

This institution, as usual, reports the largest attendance of any of the denominational schools of the State, the enrollment for the current year aggregating over 800. The faculty consists of the President and eighteen professors and instructors. There are five distinct departments, viz.: Academic, Theological, Commercial, Music, and Art. The Academic department embraces four courses of study, three extending through four years and the Normal through two. The College also includes a Preparatory department embracing three courses of study corresponding with the three Collegiate courses. The degrees conferred are Bachelor of Arts, Bachelor of Philosophy, and Bachelor of Science, upon graduates from the Classical, Philosophical, and Scientific courses respectively. Especial attention is given to the study of the natural sciences and comparative anatomy, and the college is well supplied with facilities and material for original research in these departments. Though the College possesses five commodious buildings, there is a pressing need for more, especially a building for the Museum. Like many other kindred institutions, the lack of funds materially impedes the progress of the College.

Hope College.

The report of the President for the past year shows a total attendance of 21 in the collegiate department and 92 in the preparatory course, an increase of 28 in the latter department over last year's enrollment. The faculty comprises nine professors. Until 1878 women were not admitted to matriculation, but during that year the institution was opened to women. Although under the auspices and control of the Reformed Church of America, no applicant is refused admission on account of denominational affiliations. There has been no change in the course of study from the previous year. Special attention is given to the sciences and modern languages. Steps are being taken to secure funds for the endowment of a Theological Department.

Olivet College.

The past year is reported as having been a very prosperous one for this institution. The attendance has been greater than for the past ten years. Shipherd Hall has been rebuilt and enlarged; the indebtedness reduced to $6,500; over eighteen hundred volumes have been added to the library, making a total of 11,000 volumes. A library building is needed, and a building committee has been appointed and plans will be adopted and work commenced in the near future. Work has also been resumed on the Science building, which will probably be completed by next commencement. Some changes have been made in the faculty. Prof. Loba, an *alumnus* of Olivet, has been appointed to the chair of Rhetoric, Prof. Tison is succeeded by Prof. Gould as professor of Latin. The faculty now numbers sixteen members. In addition to the usual collegiate course, there is a Preparatory department, Art department, Normal department, and School of Music.

Michigan Military Academy.

This is the only institution in the northwest making military instruction and drill part of the daily curriculum. Three courses of study are offered—English and Commercial, Preparatory, Scientific and Engineering. The Preparatory course is designed to prepare students for the different courses of the State University. The many advantages that follow military drill and

discipline in connection with study are very generally recognized, and the success that has attended this school since its establishment in 1877 is the best demonstration of the popular esteem for this system of preparatory study. The attendance has increased from sixty in 1877 to 138 in 1883. The faculty numbers seven instructors. Thirteen graduated in the various courses at the late commencement. The direct advantage of the military system on the health of the students is quite clearly shown by the facts stated in the Superintendent's report. The regulation limiting the age at which cadets are matriculated, to fourteen years and over, has caused a slight decrease in the enrollment over the previous year, but has had a beneficial result upon the grading of the classes. There have been no important changes in the courses of study since the last report.

Kalamazoo College.

This institution is under the charge of Rev. Theodore Nelson during the present college year, as Acting President, Rev. Kendall Brooks having been granted one year's leave of absence. The faculty includes seven instructors. Though under the control of the Baptist denomination, the instruction is purely unsectarian. The preparatory and collegiate departments each offer three courses of study, Classical, Latin-Scientific, and Scientific. A portion of the students occupy rooms in the college dormitory, which is located in the library building. The other building, known as Kalamazoo Hall, contains the chapel and recitation rooms. A third building will soon be erected as a boarding hall for young women. The college has a spacious and pleasant Library Hall, well furnished with papers and periodicals, which is open to students daily. The Library contains about three thousand volumes and is constantly increasing by donation and purchase. The chemical and philosophical laboratory is poorly equipped. The enrollment the present year is 159.

Somerville School.

A number of changes, indicative of prosperity, have been made during the past year in this institution. Rev. E. A. Berry, formerly assistant superintendent of the Michigan Military Academy, has been appointed superintendent, and entered upon his duties at the opening of the present school year. Mrs. C. F. Ballentine, who established and conducted the school until the appointment of Mr. Berry, still remains actively connected with the school as principal. An addition has been erected affording increased accommodations for students and including an Art Room. The number of teachers has been increased to twelve.

The school is purely undenominational. There are three general departments, Literature, Art, and Music. The former includes three courses of study, Belles Lettres, College Preparatory or Academic, and the Primary Department. Students completing the Academic course are admitted to the University without examination. The library, though small, is excellent in character, and the Art studio is well supplied with material for study. A very choice collection of books on Art is a prominent feature of the library.

Other Institutions.

No manuscript reports have been received from other incorporated institutions, and the only information furnished in relation to them are contained in the tabulated statistics published in another portion of this report.

Advisable Changes in the School Laws.

It is not considered wise to make frequent amendments to the laws or to change them for slight causes; neither is it expedient to keep laws upon the statute books that are inoperative or that fail to accomplish the purposes for which they were enacted. It is better to abolish bad laws than to retain them, and when they are found to be defective it is the part of every legislator to seek such amendments as will make them acceptable and effective.

The discussion of needed changes in our school laws will be found in the preceding pages of this report; but I wish here to recapitulate those changes, and to urge upon legislators the importance of taking such action as will improve the work of public education.

1. The township should be made the district unit for the management of local school affairs.

2. The laws should be so amended as to facilitate the grading of work in country schools.

3. Uniformity of text-books in the schools is demanded. Township uniformity is the most practicable plan, and is best accomplished by the district furnishing the books.

4. Better supervision of the schools is needed. This should be under the control of and largely conducted by the secretary of the county board of examiners.

5. The compulsory school law should be made more effective. The distribution of the primary school interest fund on the basis of percentage of attendance, under proper restrictions, would be a potent agent in securing school attendance.

6. More stringent measures should be enacted to induce *all* school officers and teachers to a strict observance of the laws concerning their official duties. Especially as relates to making reports, employing teachers, and disbursing school funds. A forfeiture of primary school interest money or a portion of salary, for a non-compliance with the requirements of the laws would help to secure their enforcement.

7. No provision is made for defraying the necessary expenses of visitors who are appointed to visit the educational institutions of the State and to report their workings. I would advise that the State provide for the necessary expenses of these persons while performing their duties as members of these visiting boards.

Conclusion.

In presenting my views upon the subjects that have been discussed in the foregoing pages, I have endeavored to do so with care and discretion, yet with an assurance arising from an honest conviction in what has been said. I am well aware that there is a variance of opinion upon many of the topics considered, and that there will be those who will differ from me in the positions which I have taken. I am willing, however, to leave the pages of this report to the judgment of candid and intelligent men, and I trust that, whatever may be the criticisms, the final outcome will result in useful reforms in the public schools.

I would respectfully call attention to defects pointed out in our present school laws, and the amendments that have been recommended to meet these defects. I would also urge upon school men and legislators the importance of

taking such action as will hasten the needed improvements in our educational system.

I wish here to acknowledge my obligations and to extend my thanks to the educators of the State for their cordial coöperation in my work. Unacquainted with many of the duties of the office, upon taking the position of Superintendent I keenly felt its responsibilities; but I have been nobly seconded in my labors by an earnest corps of teachers and superintendents. Whatever success may attend my official work, much of it will be due to the cheerful assistance rendered me by the friends of education.

I desire, also, to acknowledge my appreciation of the official assistance that has been given. The ready and able services rendered by those who were retained in the Department have made my labors more pleasant and successful than they otherwise would have been.

I submit this report with the highest confidence in those who shape our educational policy and make our laws, and the same wisdom and generosity that have been manifested for the public schools in the past I am assured will be extended to them in the future.

Very respectfully,

HERSCHEL R. GASS,

Superintendent of Public Instruction.

STATISTICAL TABLES.

TABLE I.

Camparative Summary of Statistics for the Years 1882 and 1883.

Items.	1882.	1883.	Increase or Decrease.
DISTRICTS AND SCHOOLS.			
Number of townships and independent districts reporting	1,111	1,147	36
Number of graded school districts	429	433	4
Number of ungraded school districts	6,201	6,286	85
Total	6,630	6,719	89
School census of graded schools	241,186	254,712	13,526
School census of ungraded schools	297,170	306,018	8,848
Total	538,356	560,730	22,374
Enrollment in graded schools	161,254	170,382	9,128
Enrollment in ungraded schools	224,250	221,228	*dec.* 3,022
Total	385,504	391,610	6,106
Percentage of attendance in graded schools	67	66.8	*dec.* .2
Percentage of attendance in ungraded schools	75.4	72.3	*dec.* 3.1
Percentage for the State	71.5	69.8	*dec.* 1.7
Number of districts reporting having maintained school	6,523	6,617	94
Average duration of schools in months in graded schools	9.3	9.3	0
Average duration of schools in months in ungraded schools	7.1	7.3	.2
Average for the state	7.4	7.4	0
Number of private and select schools reported	271	295	24
Number of men teachers in such schools	130	137	7
Number of women teachers in such schools	180	282	102
Estimated number of pupils attending such schools	20,577	22,581	2,004

TABLE I.—*Continued.*

Items.	1882.	1883.	Increase or Decrease.
TEACHERS AND THEIR EMPLOYMENT.			
Exact number of teachers necessary to supply graded schools	2,658	2,797	139
Exact number of teachers necessary to supply ungraded schools	6,182	6,360	178
Total	8,840	9,157	317
Number of men teachers employed in graded schools	586	574	*dec.* 12
Number of men teachers employed in ungraded schools	3,301	3,152	*dec.* 149
Total	3,887	3,726	*dec.* 161
Number of women teachers employed in graded schools	2,432	2,540	108
Number of women teachers employed in ungraded schools	8,148	8,571	423
Total	10,580	11,111	531
Whole number of teachers employed in graded schools	3,018	3,114	96
Whole number of teachers employed in ungraded schools	11,449	11,723	274
Total	14,467	14,837	370
Average number of months taught by men in graded schools	8	8.3	.3
Average number of months taught by men in ungraded schools	4.2	4.2	0
General average	4.7	4.9	.2
Average number of months taught by women in graded schools	8.7	8.9	.2
Average number of months taught by women in ungraded schools	3.7	3.8	.1
General average	4.9	4.9	0
Total wages of men teachers in graded schools	$342,656 84	$366,969 91	$24,313 07
Total wages of men teachers in ungraded schools	427,952 02	458,386 52	30,434 50
Total	$770,608 86	$825,356 43	$54,747 57

TABLE I.—*Continued.*

Items.	1882.	1883.	Increase or Decrease.
Total wages of women teachers in graded schools	$709,176 37	$857,986 08	$148,809 71
Total wages of women teachers in ungraded schools	714,117 70	778,144 15	64,026 45
Total	$1,423,294 07	$1,636,130 23	$212,836 16
Aggregate wages of all teachers in graded schools	$1,051,833,21	$1,224,955 99	$173,122 78
Aggregate wages of all teachers in ungraded schools	1,142,069 72	1,236,530 67	94,460 95
Total	$2,193,902 93	$2,461,486 66	$267,583 73
Average monthly wages of men in graded schools	$72 91	$75 19	$2 28
Average monthly wages of men in ungraded schools	30 91	34 05	3 14
Average for all schools	$41 56	44 99	$3 43
Average monthly wages of women in graded schools	$33 36	$37 56	$4 20
Average monthly wages of women in ungraded schools	23 32	23 97	65
Average for all schools	$27 44	$29 58	$2 14
EXAMINATION AND CERTIFICATION OF TEACHERS.			
Number of public examinations held	445	455	10
Number of applicants for regular certificates	11,382	13,172	1,790
Number of first grade certificates granted	174	135	*dec.* 39
Number of second grade certificates granted	638	564	*dec.* 74
Number of third grade certificates granted	7,662	8,020	358
Whole number of regular certificates granted	8,474	8,719	245
Number of applicants for special certificates	3,395	3,110	*dec.* 285
Number of special certificates granted	3,106	2,601	*dec.* 505
Number teaching who held State or Normal certificates	213	292	79
Whole number of legally qualified teachers	10,265	10,027	*dec.* 238
Number licensed without previous experience in teaching	2,011	1,882	*dec.* 129
Number of applicants who had attended the Normal school	1,995	2,244	249
Number of applicants that had attended institutes during year	3,490	4,152	662

TABLE I.—*Continued.*

Items.	1882.	1883.	Increase or Decrease.
SCHOOL PROPERTY			
Number of frame school houses	5,207	5,357	150
Number of brick school houses	895	962	67
Number of stone school houses	80	75	*dec.* 5
Number of log school houses	546	496	*dec.* 50
Total	6,728	6,890	162
Whole number of sittings in school houses	*476,072	485,386	9,314
Estimated value of property in graded school districts	$6,271,963 00	$6,758,662 00	$486,699 00
Estimated value of property in ungraded school districts	3,576,530 00	3,677,198 00	100,668 00
Total	$9,848,493 00	$10,435,860 00	$587,367 00
Number of districts reporting dictionaries in school	2,653	2,539	*dec.* 114
Number of districts reporting globes in school	1,174	1,179	5
Number of districts reporting maps in school	1,789	1,511	*dec.* 278
FINANCIAL.			
Amount of moneys from preceding year	$876,882 28	$933,688 22	$56,805,94
Amount of one-mill tax received	514,504 56	640,141 50	125,636,94
Amount of primary school interest fund received	626,673 56	724,864 21	98,190,65
Amount received for tuition from non-residents	40,513 18	46,196 17	5,682,99
Amount received from district taxes	2,269,504 47	2,538,997 07	269,492,60
Amount received from all other sources	406,948 69	499,539 03	92,590,34
Total resources	$4,735,026 74	$5,383,426 20	$648,399 46
Amount paid men teachers	$767,004 32	$822,694 27	$55,689 95
Amount paid women teachers	1,426,262 86	1,636,389 34	210,126 48
Amount paid for building and repairs	567,283 80	707,408 20	140,124 40
Amount paid on bonded indebtedness	353,017 61	326,892 48	*dec.* 26,125 13
Amount paid for all other purposes	675,722 34	766,488 47	90,766 13
Amount carried over to next year	945,735 81	1,123,553 44	177,817 63
Total expenditures, including amount carried over	$4,735,026 74	$5,383,426 20	$648,399 46
Total expenditures in graded school districts	$2,160,399 42	$2,305,906 36	$145,506 94
Total expenditures in ungraded school districts	1,628,891 51	1,953,966 40	325,074 89
Total net expenditures	$3,789,290 93	$4,259,872 76	$470,581 83
Total bonded indebtedness of districts	$1,246,119 06	$1,371,404 08	$125,285 02
Total floating indebtedness of districts	117,292 06	122,377 31	5,085 25
Total indebtedness	$1,363,411 12	$1,493,781 39	$130,370 27

* Erroneously reported as 481,955 in 1882 report.

TABLE I.—*Continued.*

Items.	1882.	1883.	Increase or Decrease.
Total indebtedness of graded school dsstricts	$1,069,111 83	$1,115,218 74	$46,106 91
Total indebtedness of ungraded school districts	294,299 29	378,562 65	84,263 36
Total indebtedness	$1,363,411 12	$1,493,781 39	$130,370 27
Total amount due the districts	$228,483 36	$176,903 28	$51,580 08
SCHOOL LIBRARIES.			
Number of townships maintaining libraries	413	426	13
Number of volumes in township libraries	84,957	97,639	12,682
Amount paid for support of township libraries	$9,581 78	$12,881 01	$3,299 23
Amount of taxes voted for township libraries	4,090 74	2,924 70	*dec.* 1,166 04
Amount received from county treasurers	9,906 26	8,080 55	*dec.* 1,825 71
Number of townships diverting moneys to general purposes	397	356	*dec.* 41
Number of townships forfeiting library moneys	315	311	*dec.* 4
Number of districts of 100 children or more, maintaining libraries	260	272	12
Number of volumes in such libraries	156,251	180,744	24,493
Amount paid for the support of such libraries	$30,281 66	$34,547 88	$4,266 22
Amount received from county treasurers	23,165 34	22,816 44	348 90
Number districts of less than 100 children reporting libraries	994	921	*dec.* 73
Number of volumes in such libraries	51,897	49,270	*dec.* 2,627
Whole number of libraries of all kinds	1,667	1,619	*dec.* 48
Whole number of volumes in libraries	293,105	327,653	34,548
TEACHERS' INSTITUTES.			
Number of state institutes held	68	65	*dec.* 3
Number of men enrolled at such institutes	1,530	1,501	*dec.* 29
Number of women enrolled at such institutes	4,036	4,257	221
Total enrollment	5,566	5,758	192
Amount received from state treasurer for institutes	$1,800 00	$1,800 00	0
Amount received from county treasurers	6,745 57	6,345 15	*dec.* $400 42
Total amount received and expended	$8,545 57	$8,145 15	*dec.* $400 42
MISCELLANEOUS.			
Number of counties having county teachers' associations	34	36	2
Number of visits to schools by secretaries of county boards	655	546	*dec.* 109
Number of visits by other members of county boards	241	173	*dec.* 68
Total number of visits	896	719	*dec.* 177

TABLE I.—*Continued.*

Items.	1882.	1883.	Increase or Decrease.
Amount *per diem* received by examiners	$12,023 00	$11,538 04	*dec.* $484 96
Amount paid secretaries of county boards for services	12,927 50	13,160 00	232 50
Amount received by secretaries for special certificates	2,405 25	1,779 50	*dec.* 625 75
Total compensation	$27,355 75	$26,477 54	*dec.* $878 21
Amount allowed by supervisors for expenses of county boards of examiners	$977 00	$1,309 34	$332 34
Amount paid and due township inspectors for services	$22,429 59	$24,857 06	$2,427 47
Amount paid and due chairmen of boards of inspectors	$14,262 37	$14,370 81	$108 44

TABLE II.

Apportionment of the Primary School Interest Fund for 1883, at $1.43 Per Capita; made May 3, 1883.

Counties.	Whole Number of Children in School Census.	Number included in the Apportionment.	Amounts Apportioned.
Totals,	538,356	534,245	$764,510 99
Alcona	1,020	1,020	$1,458 60
Allegan	12,427	12,363	17,679 09
Alpena	2,605	2,605	3,725 15
Antrim	2,225	2,183	3,121 69
Arenac			
Baraga	661	661	*a* 1,081 63
Barry	7,947	7,947	*b* 11,428 69
Bay	13,221	13,192	18,864 56
Benzie	1,221	1,195	1,708 85
Berrien	12,085	12,085	17,281 55
Branch	7,871	7,871	11,255 53
Calhoun	11,528	11,528	*c* 16,527 20
Cass	6,451	6,451	9,224 93
Charlevoix	2,301	2,284	3,266 12
Cheboygan	2,758	2,583	3,693 69
Chippewa	1,885	1,789	2,556 27
Clare	1,191	1,150	1,644 50
Clinton	8,615	8,573	12,257 06
Crawford	445	398	569 14
Delta	1,798	1,798	2,571 14
Eaton	9,153	9,153	13,088 79
Emmet	2,375	2,308	3,300 44
Genesee	11,791	11,791	16,861 13
Gladwin	366	366	523 38
Grand Traverse	2,998	2,963	4,223 79
Gratiot	7,751	7,742	11,071 06
Hillsdale	9,422	9,423	13,473 46
Houghton	7,908	7,908	11,308 44
Huron	7,850	7,574	10,830 82
Ingham	10,252	10,207	14,596 01

TABLE II.—*Continued.*

Counties.	Whole Number of Children in School Census.	Number included in the Apportionment.	Amounts Apportioned.
Ionia	9,973	9,973	14,261 39
Iosco	2,141	2,141	3,061 63
Isabella	4,431	4,156	5,943 08
Isle Royal			
Jackson	12,453	12,310	17,603 30
Kalamazoo	9,942	9,891	14,144 13
Kalkaska	1,240	1,240	1,773 20
Kent	24,400	24,378	34,860 54
Keweenaw	1,768	1,768	2,528 24
Lake	1,389	1,371	1,960 53
Lapeer	9,545	9,478	13,553 54
Leelanaw	2,300	2,300	3,289 00
Lenawee	14,436	14,421	20,622 03
Livingston	6,514	6,514	9,315 02
Mackinac	1,216	1,097	1,568 71
Macomb	10,703	10,703	15,305 29
Manistee	4,872	4,828	6,904 04
Manitou	368	368	*d* 678 76
Marquette	8,647	8,346	11,934 78
Mason	3,088	3,054	4,367 22
Mecosta	5,005	4,988	7,132 84
Menominee	3,525	3,484	4,982 12
Midland	2,391	2,301	*e* 3,302 83
Missaukee	505	488	697 84
Monroe	11,724	11,689	16,715 27
Montcalm	10,009	9,910	14,171 30
Montmorency	107	87	124 41
Muskegon	9,801	9,799	14,012 57
Newaygo	4,843	4,829	6,905 47
Oakland	11,652	11,652	16,662 36
Oceana	3,978	3,969	5,675 67
Ogemaw	648	554	792 22
Ontonagon	1,119	1,119	1,600 17
Osceola	3,790	3,606	5,156 58
Oscoda	182	182	260 26
Otsego	816	754	1,078 22
Ottawa	12,466	12,466	17,826 38
Presque Isle	1,030	896	1,281 28
Roscommon	289	241	344 63
Saginaw	20,765	20,716	29,623 88
St. Clair	16,582	16,582	*f* 23,823 86
St. Joseph	8,073	8,064	*g* 11,501 76
Sanilac	10,363	10,060	14,385 80
Schoolcraft	452	426	609 18
Shiawassee	8,469	8,293	11,858 99
Tuscola	9,348	9,179	13,125 97
Van Buren	9,478	9,378	*h* 13,461 38
Washtenaw	12,804	12,710	18,175 30
Wayne	58,193	58,053	83,015 79
Wexford	2,393	2,334	3,337 62

a Including $136 40; deficiency for 1882.
b Including $64 48; deficiency for 1882.
c Including $42 16; deficiency for 1882.
d Including $152 52; deficiency for 1882.
e Including $13 40; deficiency for 1882.
f Including $111 60; deficiency for 1882.
g Deducting $29 76; overpaid in 1882.
h Including $50 84; deficiency for 1882.

TABLE III.

General School Statistics, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	Number of townships and cities reporting.	Whole No. of School Districts.	Number of Districts Maintained School during year.	Number of Graded Schools.	Whole No. of Children between five and twenty years of age.	Number of Children that attended school during the year.	Average number of months schools were maintained.	Number of School Houses and Material of Construction. Stone.	Brick.	Frame.	Log.	Whole No. of children that can be seated in School-houses.	Estimated Value of School Property.
Totals	1,147	6,719	6,617	433	560,730	391,610	7.4	75	962	5,357	496	485,386	$10,435,860 00
Alcona	4	18	18	2	1,091	711	7.9	....	....	15	4	1,003	$16,240 00
Allegan	24	185	184	11	12,625	9,947	7.3	....	12	177	2	12,776	171,152 00
Alpena	7	14	12	2	3,397	1,812	6.7	....	1	31	5	1,701	46,737 00
Antrim	14	62	60	2	2,570	1,918	6.3	....	2	34	....	2,745	38,934 00
Arenac	9	22	22	....	1,093	760	7.4	....	....	19	3	1,132	12,725 00
Baraga	4	10	7	1	795	490	7.6	....	....	6	2	591	14,050 00
Barry	17	147	147	5	8,043	7,086	7.5	....	8	138	2	8,650	136,220 00
Bay	12	47	47	5	13,126	7,164	7.7	....	8	45	....	7,087	221,380 00
Benzie	11	36	34	1	1,342	996	5.8	....	....	27	6	1,418	15,964 00
Berrien	21	149	149	14	11,875	9,309	7.6	....	34	122	....	12,233	294,340 00
Branch	17	130	130	6	7,972	6,812	8.	12	34	88	....	8,995	170,975 00
Calhoun	22	165	165	8	11,420	8,965	7.9	6	35	137	....	11,513	449,070 00
Cass	16	117	117	6	6,351	5,227	7.9	....	29	87	....	7,301	136,715 00
Charlevoix	15	61	59	3	2,735	1,888	6.4	....	....	45	21	2,744	30,905 00
Cheboygan	11	42	40	2	2,979	1,657	6.7	....	1	22	19	2,121	29,460 00
Chippewa	6	22	22	1	2,053	1,085	6.3	....	1	7	11	1,410	24,735 00
Clare	7	31	29	3	1,342	1,059	6.	....	....	21	9	1,588	23,560 00
Clinton	16	130	130	8	8,813	6,832	7.6	....	16	113	2	8,713	121,797 00
Crawford	8	31	30	....	556	462	5.	....	....	22	7	1,220	14,045 00
Delta	12	22	21	1	1,882	1,456	6.8	....	1	15	5	1,336	40,113 00
Eaton	18	148	148	8	9,317	8,056	7.6	1	26	124	4	9,608	155,642 00
Emmet	11	55	51	2	2,508	1,815	5.2	....	....	28	20	2,399	29,960 00
Genesee	19	162	162	11	11,845	9,706	7.5	....	14	155	1	12,112	270,550 00
Gladwin	4	15	15	....	405	293	7.4	....	....	5	11	551	7,540 00
G'dTraverse	12	58	57	1	3,302	2,539	6.2	....	1	53	9	3,053	43,628 00
Gratiot	17	119	118	6	8,161	6,457	7.2	....	6	112	4	7,965	104,521 00
Hillsdale	19	169	169	11	9,396	7,907	7.8	9	48	113	2	10,988	227,205 00
Houghton	7	20	17	10	8,578	5,223	9.5	2	1	16	1	5,001	83,000 00
Huron	27	94	92	8	8,394	4,807	7.3	....	2	72	19	6,633	69,671 00
Ingham	17	125	125	9	10,349	7,958	8.5	....	26	114	2	9,947	252,103 00
Ionia	17	145	145	10	9,710	8,102	7.6	1	26	124	2	10,192	180,170 00
Iosco	10	22	22	4	2,564	1,502	6.7	....	....	21	3	1,763	26,850 00
Isabella	16	94	90	2	4,842	3,378	7.	....	3	61	23	4,622	60,486 00
Isle Royal	....	....	....	....	....	....	....	....	....	....	....	....	....
Jackson	20	156	156	10	12,528	9,840	8.3	2	54	112	....	12,335	318,275 00
Kalamazoo	16	141	139	7	9,974	7,638	7.8	....	30	117	....	10,349	254,860 00
Kalkaska	11	46	46	1	1,384	994	5.6	....	....	35	10	1,685	20,551 00
Kent	25	209	209	16	25,077	17,057	7.7	....	43	181	4	19,423	743,390 00
Kewcenaw	7	11	11	3	1,560	1,174	7.7	....	....	12	1	1,583	20,850 00
Lake	13	48	46	2	1,619	1,278	6.2	....	1	32	11	2,787	32,440 00
Lapeer	19	134	134	11	9,659	7,572	7.8	1	3	132	1	9,589	128,482 00
Leelanaw	10	50	50	2	2,348	1,602	5.6	1	1	30	17	2,340	22,901 00
Lenawee	24	200	199	15	14,267	10,943	8.	8	98	104	1	14,745	373,495 00
Livingston	16	133	133	5	6,540	5,460	7.6	4	12	116	1	7,681	108,470 00
Mackinac	7	16	13	2	1,206	855	5.8	....	....	9	6	1,007	17,134 00
Macomb	14	113	113	9	10,933	6,478	8.	....	16	102	....	8,553	154,165 00
Manistee	13	50	49	3	5,456	3,198	6.3	....	2	37	8	3,912	81,420 00
Manitou	3	5	5	....	425	216	6.	....	....	2	3	555	1,350 00
Marquette	17	39	36	10	8,525	5,949	7.8	2	2	31	12	5,297	164,830 00
Mason	14	50	46	2	3,354	2,579	6.8	....	1	37	12	2,934	47,085 00
Mecosta	17	86	82	3	5,615	4,121	7.1	....	2	72	15	5,633	95,779 00
Menominee	7	25	25	2	3,960	2,750	7.3	....	1	24	5	2,566	60,770 00
Midland	15	54	51	2	2,653	1,975	6.7	....	2	34	16	2,892	47,150 00
Missaukee	12	35	30	....	679	474	5.3	....	....	26	8	1,185	16,675 00
Monroe	16	137	134	7	11,733	7,465	8.1	2	64	73	1	9,973	125,755 00

TABLE III.—*Continued.*

Counties.	Number of townships and cities reporting.	Whole No. of School Districts.	Number of Districts that Maintained School during year.	Number of Graded Schools.	Whole No. of Children between five and twenty years of age.	Number of Children that attended school during the year.	Average number of months schools were maintained.	Number of School Houses and Material of Construction. Stone.	Brick.	Frame.	Log.	Whole No. of children that can be seated in school-houses.	Estimated Value of School Property.
Montcalm	22	131	130	10	10,465	8,200	7.8	....	3	121	6	9,518	$145,630 00
M'tmorency	4	16	16	....	186	139	4.2	....	....	4	8	368	3,700 00
Muskegon	18	87	84	8	10,841	6,826	6.8	....	9	77	8	7,520	202,176 00
Newaygo	19	93	91	4	5,402	3,990	7.	....	2	76	13	5,416	67,615 00
Oakland	25	217	217	16	11,702	9,768	7.8	14	35	173	....	13,868	285,175 00
Oceana	16	86	85	4	4,345	3,467	6.7	....	....	73	12	4,644	51,850 00
Ogemaw	11	36	31	1	882	663	5.3	....	....	22	9	1,129	12,725 00
Ontonagon	4	9	9	5	1,140	775	8.3	....	....	6	....	770	15,300 00
Osceola	16	81	75	3	4,201	2,997	6.6	....	....	53	22	3,926	53,065 00
Oscoda	9	22	19	....	256	228	4.3	....	....	8	4	348	3,490 00
Otsego	8	33	32	1	991	772	6.	....	....	28	3	1,312	16,692 00
Ottawa	17	120	120	15	12,923	9,354	7.9	....	15	106	1	10,689	183,030 00
Presque Isle	10	23	23	1	1,147	695	4.9	....	....	11	14	1,296	15,495 00
Roscommon	4	10	9	1	370	242	6.	....	....	4	5	456	5,100 00
Saginaw	30	144	141	9	22,125	12,658	7.6	....	19	122	6	13,458	433,644 00
St. Clair	25	154	153	9	16,469	10,835	7.7	....	13	138	7	13,283	231,492 00
St. Joseph	16	124	124	9	8,212	6,599	8.1	2	30	89	....	9,199	236,115 00
Sanilac	26	127	126	10	11,031	7,552	7.6	....	5	117	14	8,433	81,865 00
Schoolcraft	6	13	12	1	721	469	7.5	....	1	2	8	687	12,850 00
Shiawassee	18	122	122	7	8,711	6,912	8.3	....	10	112	5	8,734	161,660 00
Tuscola	23	132	130	7	9,903	7,456	7.6	....	8	120	6	8,864	94,140 00
Van Buren	18	156	155	14	9,392	7,931	7.5	....	14	143	....	11,172	201,196 00
Washtenaw	22	165	165	6	13,024	9,640	7.9	8	62	105	1	11,960	345,460 00
Wayne	20	148	147	15	62,744	28,410	8.5	....	69	109	1	27,201	1,183,480 00
Wexford	17	65	60	2	2,621	2,035	6.3	....	....	51	12	3,000	36,645 00

TABLE IV.

Employment of Teachers, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	No. of Teachers required to fill the Schools. Graded Schools.	Ungraded Schools.	Total.	Whole No. of Teachers Employed. Men.	Women.	Aggregate No. of months taught by all Teachers. Men.	Women.	Total wages of Teachers for the Year. Men.	Women.	Average wages of Teachers per Month. Men.	Women.
Totals	2,797	6,360	9,157	3,726	11,111	18,344	55,294	$825,356 43	$1,636,130 23	$44 99	$29 58
Alcona	5	16	21	8	18	52	107	$2,786 00	$4,150 70	$53 19	$38 85
Allegan	43	181	224	93	329	408	1,313	16,449 07	30,884 33	40 32	23 52
Alpena	21	28	49	12	36	71	257	3,774 50	11,915 00	53 16	46 17
Antrim	10	60	70	23	77	91	351	3,838 17	9,948 81	48 18	28 34
Arenac	.....	22	22	10	25	53	109	2,008 00	3,450 70	37 88	31 67
Baraga	5	9	14	4	6	34	50	2,383 00	2,180 00	70 09	43 60
Barry	25	142	167	94	221	375	917	13,324 08	19,911 05	35 53	21 71
Bay	81	44	125	23	117	153	981	9,583 25	33,971 25	62 50	34 63
Benzie	4	36	40	12	45	49	190	1,866 00	5,086 50	38 08	26 77
Berrien	76	138	214	72	278	389	1,318	19,266 07	36,518 30	49 53	27 71
Branch	44	125	169	80	227	301	1,045	16,562 82	25,172 74	42 36	33 66
Calhoun	79	158	337	82	332	395	1,529	18,630 25	42,511 05	47 04	27 80
Cass	28	113	141	72	189	338	804	13,978 79	22,429 29	41 36	27 90
Charlevoix	6	58	64	36	71	136	261	4,497 08	6,964 25	33 07	33 48
Cheboygan	7	40	47	18	45	113	208	5,846 75	5,858 80	50 86	28 17

TABLE IV.—*Continued.*

Counties.	No. of Teachers required to fill the Schools.			Whole No. of Teachers Employed.		Aggregate No. of months taught by all Teachers.		Total wages of Teachers for the Year.		Average wages of Teachers per Month.	
	Graded Schools.	Ungraded Schools.	Totals.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
Chippewa	4	21	25	7	24	35	142	$1,642 00	$4,016 25	$46 91	$28 28
Clare	9	28	37	6	42	42	186	1,972 19	5,087 23	46 96	26 81
Clinton	36	122	158	90	207	397	759	15,700 90	23,112 55	39 55	30 57
Crawford	.....	32	32	13	35	49	118	1,587 00	2,978 30	32 39	25 24
Delta	10	23	33	9	33	60	192	3,572 25	6,618 75	59 54	34 32
Eaton	44	140	184	89	261	341	1,216	12,662 83	28,748 01	36 13	23 64
Emmet	12	53	65	17	74	76	285	2,031 25	7,529 03	26 57	26 42
Genesee	72	154	226	106	266	521	1,351	20,128 48	38,363 67	38 63	28 92
Gladwin	.....	15	15	3	23	15	97	420 50	2,745 12	28 00	28 30
G'd Traverse	10	57	67	29	75	121	317	5,441 07	10,331 50	44 97	32 59
Gratiot	25	113	138	86	161	358	668	12,734 04	17,783 20	35 57	26 62
Hillsdale	43	162	205	112	306	475	1,130	18,013 84	25,621 59	37 94	22 67
Houghton	66	12	78	20	74	169	656	15,527 00	32,474 05	91 82	49 50
Huron	17	88	105	37	101	234	553	9,930 84	15,039 15	42 44	27 20
Ingham	65	116	181	89	277	373	1,223	16,178 28	31,536 26	43 37	25 79
Ionia	48	116	164	112	242	460	1,014	19,569 03	28,098 62	42 54	27 71
Iosco	16	18	34	8	36	62	205	4,328 00	6,589 53	69 81	32 14
Isabella	8	94	102	49	125	198	503	7,606 53	13,040 36	38 42	25 93
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	89	146	235	96	337	461	1,583	23,658 50	44,481 67	51 32	28 10
Kalamazoo	74	134	208	81	272	375	1,367	17,023 58	36,167 05	45 40	26 46
Kalkaska	4	45	49	22	56	84	204	2,931 90	5,648 01	34 90	27 68
Kent	185	197	382	119	471	610	2,662	33,192 58	92,691 05	54 35	34 82
Keweenaw	8	11	19	8	16	68	87	5,521 00	4,293 25	81 04	49 34
Lake	5	48	53	16	70	62	266	2,263 88	7,562 19	36 51	28 43
Lapeer	40	123	163	87	184	444	900	17,528 06	22,872 15	39 48	25 41
Leelanaw	4	48	52	28	5	107	193	4,357 50	5,553 00	39 79	28 79
Lenawee	80	187	267	105	401	487	1,787	23,596 28	47,980 48	48 45	26 91
Livingston	24	128	152	91	204	403	820	14,439 25	15,928 42	35 83	19 30
Mackinac	9	14	23	11	14	63	81	2,810 94	2,881 50	44 62	35 57
Macomb	41	104	145	50	169	316	907	13,900 80	23,033 70	43 99	25 40
Manistee	25	49	74	20	86	100	467	5,754 00	19,049 19	57 54	40 80
Manitou	.....	5	5	5	4	17	15	555 00	390 00	32 65	26 00
Marquette	70	29	99	20	87	147	742	13,789 22	32,145 25	93 80	43 32
Mason	18	48	66	25	68	112	364	4,643 25	12,621 05	41 46	34 67
Mecosta	19	84	103	48	127	185	573	7,686 60	18,007 25	48 71	31 43
Menominee	16	31	47	7	51	59	331	4,010 40	12,770 00	67 97	38 58
Midland	9	52	61	11	75	58	365	2,778 08	9,447 38	47 90	25 88
Missaukee	.....	35	35	15	33	56	104	2,049 00	31,084 10	36 59	30 62
Monroe	26	130	156	75	206	341	886	13,214 50	21,326 52	38 75	24 07
Montcalm	46	124	170	71	252	401	1,082	13,697 25	31,544 90	34 16	29 16
Montmorency	.....	16	16	3	18	10	60	297 00	1,699 50	29 70	28 32
Muskegon	71	80	151	33	156	209	994	11,814 62	34,616 77	56 53	34 86
Newaygo	13	89	102	39	144	180	550	7,756 15	15,287 62	43 09	27 80
Oakland	72	201	273	120	334	603	1,657	25,006 08	36,321 77	41 47	21 93
Oceana	14	82	96	46	113	204	465	8,101 75	12,845 50	39 71	27 84
Ogemaw	.....	36	36	11	33	46	121	1,574 00	3,655 55	34 43	30 21
Ontonagon	15	6	21	8	11	72	103	5,500 00	3,825 00	76 39	37 14
Osceola	15	77	92	38	89	176	434	7,110 02	12,581 75	40 28	28 99
Oscoda	.....	22	22	5	21	12	61	370 75	1,455 70	30 90	23 86
Otsego	3	32	35	17	42	68	138	2,444 50	3,805 15	35 95	20 33
Ottawa	69	108	177	77	185	471	1,044	19,660 06	29,582 32	41 76	28 34
Presque Isle	2	22	24	19	8	83	38	2,625 16	1,018 00	31 63	26 79
Roscommon	2	9	11	1	16	3	59	90 00	2,163 13	30 00	36 66
Saginaw	124	136	260	84	271	488	1,754	26,342 15	59,556 06	53 98	33 67
St. Clair	61	146	207	56	235	367	1,352	15,855 00	35,618 20	43 47	26 34
St. Joseph	56	113	169	78	240	403	1,123	18,413 75	26,353 45	45 69	23 47
Sanilac	18	121	139	63	135	391	694	14,672 40	16,928 87	37 52	24 39
Schoolcraft	.....	13	13	4	13	11	97	527 50	4,535 00	47 91	46 64
Shiawassee	33	115	148	101	197	418	799	16,237 50	20,850 72	38 85	26 10
Tuscola	24	126	150	70	174	360	812	15,027 00	21,513 25	42 30	26 49
Van Buren	52	144	196	84	265	410	1,133	16,615 52	28,407 31	40 53	25 07
Washtenaw	87	161	248	104	298	546	1,600	30,408 42	43,820 68	55 69	27 33
Wayne	345	135	480	106	467	712	4,012	40,358 67	181,522 67	56 68	42 75
Wexford	10	64	74	24	80	111	353	4,439 00	10,422 11	39 99	29 52

TABLE V.

Resources of School Districts, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	Moneys on hand Sept. 4, 1882.	One Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Totals.....	$933,688 22	$640,141 50	$724,864 21	$32,668 90	$2,538,997 07	$513,066 30	$5,383,426 20
Alcona .	$3,678 38	$2,742 12	$1,056 82	$0 91	$7,339 64	$1,710 73	$16,528 60
Allegan	18,253 86	12,095 38	17,248 79	482 56	35,028 80	5,576 79	88,686 18
Alpena.....	1,465 84	551 08	3,120 13	109 10	29,283 58	1,858 82	36,388 55
Antrim.....	5,223 85	2,344 04	2,665 59	7 38	16,402 31	1,672 48	28,315 65
Arenac.....	2,023 20	968 78	927 79	15 67	7,066 49	787 45	11,789 38
Baraga.....	3,214 36	817 23	1,028 72	115 03	6,485 00	37 90	11,698 24
Barry	13,026 07	8,839 19	11,421 52	530 34	31,983 52	5,799 48	71,600 12
Bay	22,114 88	4,584 26	8,240 10	467 93	77,173 32	5,180 77	117,761 26
Benzie	2,368 99	1,119 60	1,749 06	8 46	9,129 00	361 31	14,736 42
Berrien.....	23,628 64	20,373 77	16,623 99	348 90	46,199 58	4,716 00	111,890 88
Branch.....	16,909 91	18,166 99	11,115 92	113 90	29,843 73	3,525 97	79,675 42
Calhoun.....	15,499 38	16,278 27	16,538 07	498 28	77,339 95	5,403 01	131,556 96
Cass.....	14,413 60	13,418 86	8,797 54	99 12	27,656 87	7,790 88	72,176 87
Charlevoix....	4,446 08	1,360 55	3,041 89	.....	13,641 14	7,698 75	30,188 41
Cheboygan....	4,446 55	2,801 31	3,446 52	21 19	12,659 50	3,959 83	27,334 90
Chippewa.....	773 66	1,127 92	2,183 26	534 09	3,954 65	1,365 44	9,939 02
Clare.....	4,630 16	3,063 13	1,688 93	.....	11,442 16	1,443 39	22,267 77
Clinton.....	16,271 99	16,478 52	11,997 49	222 05	25,041 95	5,672 13	75,684 13
Crawford.....	1,984 92	1,008 87	491 40	6 74	8,049 49	4,081 07	15,622 49
Delta.....	2,828 61	1,353 32	2,094 26	240 59	16,485 43	31,995 20	54,997 41
Eaton.....	13,627 32	13,312 56	12,648 30	234 00	35,088 99	3,007 07	77,918 24
Emmet.....	4,463 79	711 98	2,875 30	4 17	13,835 50	1,048 93	22,939 67
Genesee.....	22,214 89	18,158 14	16,283 86	1,718 56	44,203 56	7,067 12	109,646 13
Gladwin	1,613 53	845 14	449 56	.....	4,054 81	2,413 84	9,376 88
Gr'd Traverse	6,500 59	2,607 09	3,368 41	38 51	17,172 98	3,840 83	33,528 41
Gratiot.....	9,822 99	4,844 45	10,407 12	158 78	30,048 35	21,254 04	76,535 73
Hillsdale.....	13,751 35	18,716 55	13,369 15	347 24	25,172 44	2,849 25	74,205 98
Houghton.....	26,488 25	26,719 98	7,367 24	289 06	59,585 24	4,567 88	125,017 65
Huron.....	10,318 86	4,322 02	10,346 99	94 71	21,846 03	10,089 05	57,017 66
Ingham.....	15,835 51	14,845 35	14,059 44	390 40	53,043 98	6,462 17	104,636 85
Ionia.....	19,642 10	14,664 32	13,962 57	435 23	38,255 49	9,402 21	96,361 92
Iosco.....	4,660 70	1,346 81	2,839 10	203 80	15,123 95	1,319 27	25,493 63
Isabella.....	9,697 12	3,422 31	5,764 31	72 00	20,992 04	5,413 90	45,361 68
Isle Royal.							
Jackson	16,514 58	15,906 43	17,161 69	1,056 20	64,984 01	4,885 83	120,509 04
Kalamazoo....	18,246 30	18,259 71	13,935 99	1,386 18	55,545 94	5,393 05	112,767 17
Kalkaska.....	3,649 79	2,473 85	1,583 61	63 53	9,735 51	1,446 19	18,952 48
Kent	23,765 45	31,979 80	33,869 31	3,912 70	137,847 06	51,735 20	282,109 52
Keweenaw	3,201 42	2,612 19	2,105 89	200 00	9,929 64	354 61	18,403 75
Lake	4,893 71	1,495 94	1,392 94	.....	15,537 00	4,990 84	28,310 43
Lapeer.....	20,409 40	11,241 13	13,387 75	163 75	26,455 72	3,541 10	75,198 85
Leelanaw.....	2,719 56	755 61	3,411 37	.....	8,613 13	2,851 83	18,351 50
Lenawee.....	22,408 79	27,049 07	20,660 43	581 16	38,204 18	15,109 79	144,013 42
Livingston....	10,788 62	10,602 25	8,666 94	242 34	23,159 41	4,336 15	57,795 71
Mackinac.....	3,069 14	535 19	1,488 01	.....	3,260 70	3,055 78	11,408 82
Macomb.....	18,874 67	16,070 98	15,339 90	284 90	20,645 03	7,216 88	78,432 36
Manistee.....	13,931 50	5,064 74	6,778 57	366 31	37,571 06	11,052 23	74,764 41
Manitou.....	270 50	62 50	676 78	.....	715 69	124 00	1,849 47
Marquette....	23,368 79	19,982 64	11,987 00	25 22	62,280 38	19,681 63	137,325 66
Mason.....	5,802 68	2,263 81	4,122 70	493 10	23,333 43	2,310 32	38,326 04
Mecosta.....	14,802 48	4,557 58	6,390 04	692 61	34,932 62	9,582 02	70,957 35
Menominee...	6,584 25	3,358 10	3,536 78	52 38	27,387 35	9,720 72	50,639 58
Midland.....	5,826 86	1,083 54	3,186 32	110 53	16,581 04	5,658 49	32,446 78
Missaukee....	3,916 11	1,903 87	347 45	.....	8,739 72	2,330 50	17,237 65
Monroe.....	16,171 52	14,719 09	16,459 64	137 28	13,898 10	5,627 04	67,012 67

TABLE V.—*Continued.*

Counties.	Moneys on hand Sept. 4, 1882.	One Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Montcalm	$22,641 76	$7,912 33	$14,156 34	$970 43	$50,003 14	$12,835 68	$108,519 68
Montmorency	259 27	615 32	25 69	----------	3,579 79	2,059 46	6,538 93
Muskegon	16,620 85	7,486 02	13,734 31	519 22	75,154 77	16,202 05	129,717 22
Newaygo	10,274 38	3 662 98	6,188 33	38 89	26,776 97	2,951 08	49,892 63
Oakland	18,166 44	23,346 28	16,518 16	704 71	43,241 42	21,512 25	123,489 26
Oceana	5,813 58	2,882 22	5,254 58	90	22,661 00	2,315 67	38.927 95
Ogemaw	1,844 11	881 04	693 51	94 45	11,584 29	421 74	15,519 14
Ontonagon	9,950 88	2,590 05	1,044 29	272 44	8,052 53	1,336 95	23,247 14
Osceola	7,140 06	2,434 58	4,513 98	18 57	23,802 49	4,415 48	42,325 16
Oscoda	882 03	238 46	155 91	----------	1,902 09	1,237 50	4,415 99
Otsego	2,387 05	999 80	1,129 84	----------	9,908 54	3,538 85	17,964 08
Ottawa	14,252 70	11,468 06	16,851 31	721 36	48,821 40	8,282 32	100,397 15
Presque Isle	1,587 86	1,206 58	1,267 07	----------	3,058 98	1,684 40	8,804 89
Roscommon	1,296 97	684 14	149 76	----------	2,538 34	100 00	4,769 21
Saginaw	32,494 26	12,501 61	28,289 39	1,190 94	102,512 97	3,763 48	180,761 65
St. Clair	27,555 40	11,823 86	22,992 24	243 12	42,221 96	6,213 92	111,050 50
St. Joseph	14,910 35	16,787 72	11,425 81	955 71	31,702 68	6,094 20	81,876 47
Sanilac	14,377 60	5,125 59	14,005 48	98 95	26,701 22	8,634 50	68,943 34
Schoolcraft	1,044 68	3,394 82	225 21	----------	2,402 23	4,281 18	11,348 12
Shiawassee	26,073 81	10,308 95	11,707 50	214 15	27,027 12	6,236 09	81,567 62
Tuscola	15,368 39	7,180 14	13,163 41	117 34	32,971 52	4,179 15	72,979 95
Van Buren	17,712 84	10,611 41	12,280 15	141 87	40.768 85	6,548 11	88,063 23
Washtenaw	18,062 76	25,764 59	18,051 39	624 02	52,320 17	21,286 52	136,109 45
Wayne	72,231 40	21,447 22	82,058 34	8,153 89	300,211 59	15,242 14	499,344 58
Wexford	6,682 44	2,799 82	3,274 56	2 05	19,085 82	1,316 42	33,161 11

TABLE VI.

Expenditures of School Districts (Including amount on hand), as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library books and care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Amount on hand September 3, 1883.	Total Expenditures for the Year, Including Amount on hand.
Totals	$2,459,083 61	$707,408 20	$37,602 83	$326,892 48	$728,885 64	$1,123,553 44	$5,383,426 20
Alcona	$6,896 50	$1,275 50	----------	$1,731 94	$2,128 02	$4,496 64	$16,528 60
Allegan	47,270 37	5,774 36	$222 58	2,246 22	11,459 91	21,712 74	88,686 18
Alpena	17,089 50	5,686 17	145 38	210 00	10,709 03	2,548 47	36,388 55
Antrim	13,753 59	3,589 05	126 29	663 76	4,815 90	5,367 06	28,315 65
Arenac	5,359 70	1,269 89	6 75	310 28	2,033 56	2,809 20	11,789 38
Baraga	4,563 00	41 25	51 07	1,500 00	1,683 49	3,859 43	11,698 24
Barry	33,009 63	6,565 07	290 71	7,200 63	6,822 54	17,711 54	71,600 12
Bay	43,554 50	16,692 04	740 21	9,745 68	17,070 53	29,958 30	117,761 26
Benzie	6,878 23	3,151 17	----------	290 92	1,633 93	2,782 17	14,736 42
Berrien	55,814 37	6,253 98	356 12	11,391 78	14,778 18	23,296 45	111,890 88
Branch	41,742 04	4,613 69	21 64	3,594 89	10,961 74	18,741 42	79,675 42
Calhoun	60,856 90	15,449 34	1,144 70	22,560 44	15,158 28	16,387 30	131,556 96
Cass	36,214 33	6,672 89	107 74	6,331 15	12,012 72	10,838 04	72,176 87
Charlevoix	11,373 28	8,190 75	----------	1,704 34	3,882 72	5,037 32	30,188 41
Cheboygan	11,692 82	4,000 94	----------	3,016 13	3,315 51	5,309 50	27,334 90
Chippewa	5,379 46	1,562 30	137 50	662 11	835 54	1,142 11	9,939 02
Clare	7,059 42	3,505 62	----------	1,806 35	3,862 69	6,033 69	22,267 77
Clinton	38,828 65	7,122 86	60 40	3,490 00	9,253 66	16,928 56	75,684 13
Crawford	4,493 89	5,167 66	1 00	375 33	1,645 77	3,938 84	15,622 49
Delta	10,149 82	28,486 56	----------	470 00	9,658 43	6,232 60	54,997 41

TABLE VI.—*Continued.*

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library books and care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Amount on hand September 3, 1883.	Total Expenditures for the Year, Including Amount on hand.
Eaton	$41,410 44	$4,421 48	$117 57	$6,997 52	$10,054 82	$14,916 41	$77,918 24
Emmet	10,207 25	1,892 39	----------	4,463 60	3,381 78	2,994 65	22,939 67
Genesee	56,391 27	7,523 14	1,238 04	8,480 84	12,965 58	23,047 26	109,646 13
Gladwin	3,521 72	2,020 15	----------	1,240 00	1,314 32	1,280 69	9,376 88
G'd Traverse	15,343 23	4,326 52	10 00	4,208 49	4,317 98	5,322 19	33,528 41
Gratiot	30,600 27	19,228 85	90 07	4,008 48	9,387 35	13,220 71	76,535 73
Hillsdale	43,536 93	3,437 01	18 58	4,369 48	10,041 10	12,802 88	74,205 98
Houghton	48,001 05	3,843 89	361 15	1,583 99	22,248 73	48,978 84	125,017 65
Huron	24,834 24	8,596 35	170 85	3,602 07	8,117 41	11,696 74	57,017 66
Ingham	47,588 54	14,400 70	449 14	4,329 83	12,636 71	25,231 93	104,636 85
Ionia	47,405 17	10,305 72	161 20	6,476 41	10,527 11	21,486 31	96,361 92
Iosco	10,542 53	3,846 98	----------	2,677 00	2,735 89	5,691 23	25,493 63
Isabella	20,686 51	4,947 59	26 79	1,490 46	7,524 33	10,686 00	45,361 68
Isle Royal	----------	----------	----------	----------	----------	----------	----------
Jackson	67,863 77	6,025 69	420 92	7,692 59	17,633 67	20,872 40	120,509 04
Kalamazoo	54,825 61	14,562 58	1,859 09	10,140 70	12,705 89	18,673 30	112,767 17
Kalkaska	8,656 41	1,799 05	174 01	471 75	3,142 96	4,708 30	18,952 48
Kent	125,862 30	27,582 69	4,060 28	19,396 87	50,294 94	54,912 44	282,109 52
Keweenaw	9,814 25	924 23	313 91	----------	2,559 38	4,791 98	18,403 75
Lake	9,651 33	8,442 35	19 69	1,622 29	3,581 07	4,993 70	28,310 43
Lapeer	40,354 42	6,247 33	166 39	2,881 75	8,682 40	16,866 56	75,198 85
Leelanaw	9,278 80	3,259 36	----------	998 78	2,163 87	2,650 69	18,351 50
Lenawee	71,544 73	13,163 38	770 25	17,688 86	16,093 68	24,752 52	144,013 42
Livingston	30,216 67	7,275 03	197 55	3,363 07	5,963 18	10,780 21	57,795 71
Mackinac	4,315 20	1,034 41	----------	475 10	1,280 23	4,303 88	11,408 82
Macomb	36,936 70	9,499 54	379 39	1,861 80	8,508 65	21,246 28	78,432 36
Manistee	25,041 27	20,619 84	237 50	4,005 48	13,371 52	11,488 80	74,764 41
Manitou	945 00	225 34	----------	----------	271 32	407 81	1,849 47
Marquette	45,814 37	30,440 56	307 11	5,502 34	20,141 77	35,119 51	137,325 66
Mason	17,335 60	5,807 52	253 37	1,460 88	4,551 63	8,917 04	38,326 04
Mecosta	25,847 85	13,675 37	477 75	5,836 33	8,709 94	16,410 11	70,957 35
Menominee	16,344 90	9,799 52	----------	6,837 96	7,642 78	10,014 42	50,639 58
Midland	12,793 22	3,546 47	113 41	3,732 80	6,338 01	5,922 87	32,446 78
Missaukee	4,969 05	3,838 76	----------	698 03	1,886 23	5,845 58	17,237 65
Monroe	34,796 02	4,624 62	329 94	2,805 57	6,047 01	18,409 51	67,012 67
Montcalm	45,525 80	15,751 68	19 49	7,033 10	13,037 13	27,152 48	108,519 68
M'tmorency	1,960 50	942 00	----------	712 05	635 18	2,289 20	6,538 93
Muskegon	46,713 39	20,631 85	1,524 90	13,568 36	15,023 71	32,255 01	129,717 22
Newaygo	22,926 27	4,044 15	39 56	2,777 66	5,712 15	14,392 84	49,892 63
Oakland	61,272 35	9,961 86	132 55	8,740 02	14,244 51	29,137 97	123,489 26
Oceana	20,863 25	3,529 35	27 30	2,172 69	4,091 37	8,243 99	38,927 95
Ogemaw	5,701 25	4,319 60	----------	298 70	1,967 89	3,231 70	15,519 14
Ontonagon	9,325 00	1,278 75	55 90	----------	3,815 72	8,771 77	23,247 14
Osceola	19,923 77	5,353 22	----------	4,079 04	5,969 39	6,999 74	42,325 16
Oscoda	1,403 97	1,511 27	----------	----------	413 66	1,087 09	4,415 99
Otsego	6,395 65	4,577 97	----------	1,105 95	2,747 69	3,136 82	17,964 08
Ottawa	49,066 74	8,997 91	918 24	6,217 72	19,398 01	15,798 53	100,397 15
Presque Isle	3,767 52	1,941 42	161 72	135 00	1,698 77	1,100 46	8,804 89
Roscommon	2,259 13	405 95	----------	143 75	747 42	1,212 96	4,769 21
Saginaw	85,339 63	23,480 63	1,728 96	7,686 92	26,896 36	35,629 15	180,761 65
St. Clair	51,393 48	6,552 36	550 57	2,017 94	18,751 92	31,784 23	111,050 50
St. Joseph	44,703 45	4,335 38	1,293 78	7,062 94	11,516 51	12,964 41	81,876 47
Sanilac	31,489 77	10,100 07	56 07	3,453 21	9,757 56	14,086 66	68,943 34
Schoolcraft	5,041 77	474 27	100 00	281 50	1,680 05	3,770 53	11,348 12
Shiawassee	37,074 22	14,863 59	290 75	5,642 00	8,243 30	15,453 76	81,567 62
Tuscola	36,489 60	4,197 17	93 73	4,716 00	7,848 81	19,634 64	72,979 95
Van Buren	45,252 15	8,777 29	65 00	5,785 11	10,235 98	17,947 70	88,063 23
Washtenaw	74,235 85	14,370 42	565 84	5,817 95	16,839 78	24,279 61	136,109 45
Wayne	220,761 34	116,815 24	13,822 43	5,290 60	62,386 30	80,268 58	499,344 58
Wexford	14,741 14	3,939 30	----------	1,451 11	4,681 08	8,348 48	33,161 11

TABLE VII.

Miscellaneous Financial Statistics, as Reported by School Inspectors for the Year ending September 3, 1883.

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount Received by the Districts for Non-resident Tuition.	Amount due and paid the Inspectors for Services.	Amount paid and due Township Chairmen for services.
Totals	$1,371,404 08	$1,493,781 39	$176,903 28	$46,196 17	$24,857 06	$14,370 81
Alcona	$1,127 35	$1,262 31	$164 76	$6 00	$25 00	$28 60
Allegan	22,544 60	23,790 13	2,738 86	1,653 11	355 75	342 50
Alpena	3,050 00	3,533 32	260 00		312 00	24 00
Antrim	7,245 00	8,371 15	1,871 14	17 80	145 25	113 76
Arenac	1,100 00	1,316 46	1,435 49		118 25	55 52
Baraga	6,500 00	6,537 90	96 19		56 00	10 00
Barry	40,340 00	41,496 08	830 98	952 74	239 50	212 50
Bay	7,180 00	12,936 00	1,363 59	80 50	229 00	179 00
Benzie	1,089 00	2,393 20	599 71	7 40	56 31	55 87
Berrien	42,270 95	42,826 06	5,903 32	1,291 50	190 75	247 37
Branch	17,017 00	18,231 93	2,276 00	1,189 60	364 25	262 50
Calhoun	96,053 00	97,968 81	2,812 70	2,791 88	611 30	364 80
Cass	15,549 00	16,642 26	2,459 22	535 98	373 10	380 55
Charlevoix	11,160 00	12,573 81	2,702 23	31 25	117 50	87 50
Cheboygan	14,375 00	15,050 84	1,613 00	94 42	115 00	93 50
Chippewa	5,098 00	6,037 31	200 00	3 00	20 50	19 00
Clare	3,182 90	4,168 13	2,054 69		148 50	80 25
Clinton	7,800 00	9,330 85	1,361 61	1,047 65	208 00	318 95
Crawford	4,908 82	5,571 07	786 78		105 25	84 50
Delta	31,775 00	33,291 75	217 31	3.00	55 40	34 90
Eaton	27,723 07	30,463 20	2,958 83	1,026 71	475 55	188 00
Emmet	12,223 00	13,249 03	3,055 21	31 50	203 68	64 45
Genesee	81,149 00	82,282 90	752 06	2,625 61	585 59	375 75
Gladwin	1,775 00	2,648 00	2,355 50		45 00	34 00
Grand Traverse	5,851 25	6,590 06	2,525 04	333 63	90 50	91 50
Gratiot	38,115 20	39,728 94	4,055 67	552 39	282 35	272 75
Hillsdale	5,034 50	5,703 06	2,597 88	1,130 91	528 31	343 06
Houghton	16,250 00	16,270 70	5,920 60	357 00	104 00	65 00
Huron	17,611 36	19,870 35	1,837 63	46 40	275 75	206 75
Ingham	67,259 55	69,290 80	2,064 15	1,125 36	766 71	400 51
Ionia	30,316 23	32,329 66	2,677 75	1,516 73	200 90	215 00
Iosco	12,200 00	13,629 66	2,418 41	7 00	77 50	39 00
Isabella	21,315 00	22,864 42	3,596 09	132 72	202 75	159 50
Isle Royal						
Jackson	10,383 00	18,673 32	1,594 27	1,798 32	268 13	254 11
Kalamazoo	24,015 60	25,469 21	1,322 23	1,326 71	245 67	209 85
Kalkaska	1,012 50	1,294 68	593 23	8 90	112 20	144 20
Kent	126,985 00	130,427 65	3,207 18	1,029 36	844 75	479 80
Keweenaw		40 00	1,454 82		35 00	6 00
Lake	7,742 20	10,099 46	1,615 36	33 75	126 50	173 75
Lapeer	3,215 00	4,738 84	2,257 98	1,012 84	261 50	282 20
Leelanaw	3,300 99	3,723 16	1,298 71	13 13	88 75	106 93
Lenawee	21,815 30	24,064 46	3,866 74	1,699 37	512 05	510 10
Livingston	15,711 30	17,445 63	2,111 40	1,088 03	248 14	182 85
Mackinac	10,200 00	12,060 32	1,186 83		79 50	21 50
Macomb	7,581 34	8,008 69	419 10	1,003 12	203 50	263 85
Manistee	17,025 00	19,909 80	1,520 34	28 65	78 30	71 30
Manitou		155 00	614 61		41 50	28 00
Marquette	71,920 50	73,511 22	985 38	33 00	815 68	82 00
Mason	10,535 00	10,800 40	1,090 61	24 97	246 50	88 82
Mecosta	10,955 57	11,670 16	2,859 98	181 46	367 73	387 98
Menominee	19,175 00	21,212 41	912 50		219 00	32 60
Midland	9,631 45	11,699 10	10,452 56	76 00	122 80	97 05
Missaukee	1,853 50	4,242 90	2,254 44		112 34	68 80
Monroe	15,532 31	16,286 13	1,010 76	490 25	284 75	423 65

TABLE VII.—*Continued.*

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount Received by the Districts for Non-resident Tuition.	Amount due and paid the Inspectors for Services.	Amount paid and due Township Chairmen for services.
Montcalm	$11,893 59	$13,277 93	$3,946 23	$451 93	$450 50	$281 25
Montmorency	1,750 00	2,305 44	2,257 18	----------	102 44	46 00
Muskegon	34,825 00	36,283 45	3,613 89	316 61	219 99	190 74
Newaygo	13,089 20	14,044 85	6,544 47	55 25	359 45	175 60
Oakland	24,597 00	25,908 74	2,053 52	2,898 00	504 50	446 75
Oceana	2,778 00	3,951 85	1,892 41	142 58	255 00	262 50
Ogemaw	72 00	1,586 56	4,157 68	----------	132 00	57 50
Ontonagon	200 00	200 00	----------	----------	89 00	68 50
Osceola	8,230 00	8,597 00	2,642 43	100 50	121 35	168 50
Oscoda	300 00	1,379 27	323 76	2 00	91 05	52 55
Otsego	5,238 00	5,592 71	226 89	12 97	178 35	81 80
Ottawa	26,533 00	30,149 72	3,790 97	241 90	307 42	327 16
Presque Isle	4,700 00	10,093 25	750 84	5 00	109 00	138 50
Roscommon	800 00	925 00	711 56	----------	37 50	14 50
Saginaw	11,410 87	12,283 41	4,646 82	309 06	1,980 18	350 50
St. Clair	18,475 43	19,816 71	2,136 77	455 37	377 75	336 12
St. Joseph	12,400 00	13,824 74	246 68	2,060 75	302 36	274 79
Sanilac	17,664 31	19,060 68	3,929 53	89 82	346 24	281 75
Schoolcraft	2,710 00	2,869 73	200 00	----------	65 00	50 00
Shiawassee	31,938 80	32,478 64	1,963 52	722 44	300 75	349 10
Tuscola	15,439 34	23,764 95	5,879 25	475 39	282 48	268 00
Van Buren	19,546 14	20,040 29	3,682 45	1,219 04	279 50	177 75
Washtenaw	20,414 06	26,291 24	1,600 07	5,723 40	427 00	280 25
Wayne	19,002 00	20,787 61	6,960 03	1,825 36	4,271 25	214 00
Wexford	2,618 00	4,484 95	1,554 90	49 15	267 51	101 12

TABLE VIII.

Statistics of Township Libraries, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	No. of Townships reporting Library Moneys used for General Purposes.	No. of Townships Forfeiting their Library Moneys.	No. of Townships maintaining Libraries.	No. of Volumes added to Libraries during Year.	Whole No. of Volumes in Libraries.	Amount Paid for Books and Care of Libraries.	Amount of Taxes Voted for Township Libraries.	Amount of Fines, etc., received from County Treasurers.
Totals	356	311	426	10,116	97,639	$12,881 01	$2,924 70	$8,080 55
Alcona	-------	-------	2	85	685	$104 05	----------	$76 66
Allegan	9	7	8	154	1,193	259 43	----------	231 16
Alpena	-------	2	4	90	464	33 38	----------	37 28
Antrim	2	1	11	16	1,769	138 56	$120 00	83 47
Arenac	3	5	1	-------	77	10 00	----------	----------
Baraga	1	1	2	22	195	18 52	----------	18 52
Barry	11	2	3	27	1,058	32 45	----------	23 48
Bay	-------	3	8	312	1,702	142 00	----------	127 46
Benzie	-------	2	2	9	22	1,068	79 24	----------
Berrien	11	5	5	426	1,633	351 70	125 00	141 39
Branch	9	4	3	10	1,417	101 00	----------	33 90
Calhoun	14	2	4	250	794	168 45	150 00	115 98
Cass	8	3	4	140	1,338	211 12	----------	33 61
Charlevoix	-------	8	7	123	759	243 04	165 00	----------
Cheboygan	2	2	7	99	717	176 14	----------	54 58
Chippewa	1	3	2	30	30	----------	----------	----------
Clare	1	3	4	241	535	304 33	----------	8 76
Clinton	9	4	3	109	521	74 76	----------	42 04
Crawford	1	4	3	90	271	172 10	----------	151 85
Delta	1	8	2	50	415	----------	----------	----------

TABLE VIII.—*Continued.*

Counties.	No. of Townships reporting Library Moneys used for General Purposes.	No. of Townships Forfeiting their Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Libraries during Year.	Whole No. of Volumes in Libraries.	Amount Paid for Books and Care of Libraries.	Amount of Taxes Voted for Township Libraries.	Amount of Fines, etc., receiv'd from County Treasurers.
Eaton	6	3	7	406	2,838	$674 82	$50 00	$257 23
Emmet	1	2	7	148	1,078	126 86	.....	108 37
Genesee	12	4	2	50	314	10 00	.....	70 87
Gladwin	.....	3	1	.....	192	.....	.....	.....
Grand Traverse	1	4	7	79	1,370	99 09	.....	137 38
Gratiot	10	6	1	.....	83	.....	.....	.....
Hillsdale	12	5	1	1	160	145 45	.....	11 97
Houghton	1	3	2	19	630	145 45	100 00	70 12
Huron	9	8	10	121	1,254	138 92	25 00	98 64
Ingham	12	4	.....	.....	.....	.....	.....	.....
Ionia	9	4	3	.....	168	.....	.....	20 62
Iosco	.....	5	5	171	1,038	211 59	.....	117 15
Isabella	2	6	9	245	687	233 28	.....	457 98
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	12	6	1	23	619	37 31	.....	32 31
Kalamazoo	5	8	3	134	1,359	154 03	25 00	135 46
Kalkaska	3	5	3	1	205	15 00	.....	26 09
Kent	10	5	9	453	3,207	535 81	25 00	580 58
Keweenaw	1	2	4	.....	1,522	25 00	.....	7 76
Lake	2	3	8	140	926	242 10	180 00	8 02
Lapeer	6	6	6	230	1,408	285 06	.....	33 59
Leelanaw	.....	.....	10	2	1,526	57 50	.....	.....
Lenawee	6	7	9	64	9,085	97 71	16 30	101 98
Livingston	8	5	3	55	1,716	69 14	.....	7 73
Mackinac	.....	3	3	.....	690	25 00	.....	.....
Macomb	3	6	4	130	1,037	173 96	.....	125 18
Manistee	1	3	8	34	921	80 90	.....	182 47
Manitou	2	1	.....	.....	.....	.....	.....	.....
Marquette	1	4	9	29	2,206	222 60	10 00	47 92
Mason	.....	1	12	340	2,423	337 67	24 04	179 69
Mecosta	7	3	5	127	544	59 27	.....	204 36
Menominee	1	2	2	842	1,388	1,172 64	600 00	.....
Midland	2	5	8	136	576	114 48	25 00	60 58
Missaukee	.....	5	5	78	268	74 96	25 00	66 31
Monroe	3	2	10	44	3,184	76 81	.....	83 17
Montcalm	8	4	9	269	1,278	236 74	100 00	596 49
Montmorency	.....	2	2	178	178	216 21	300 00	.....
Muskegon	2	1	14	499	2,852	558 29	.....	311 39
Newaygo	3	4	12	110	1,525	168 99	200 00	263 18
Oakland	16	3	6	216	1,933	197 82	.....	225 54
Oceana	.....	3	13	282	2,704	386 35	235 73	35 87
Ogemaw	5	5	1	.....	100	.....	.....	.....
Ontonagon	2	5	.....	.....	.....	.....	.....	.....
Osceola	3	2	11	103	1,568	195 38	.....	84 75
Oscoda	3	6	.....	.....	.....	.....	.....	.....
Otsego	1	2	5	214	1,466	190 95	.....	.....
Ottawa	3	3	9	487	2,102	573 67	80 30	271 13
Presque Isle	2	8	.....	.....	.....	.....	.....	.....
Roscommon	1	2	.....	.....	.....	.....	.....	.....
Saginaw	12	3	12	174	5,212	263 30	147 33	229 66
St. Clair	6	7	9	121	2,440	91 97	11 00	180 05
St. Joseph	10	2	3	179	1,475	309 73	100 00	390 76
Sanilac	8	7	11	236	1,229	186 56	25 00	292 08
Schoolcraft	1	3	2	40	420	125 00	.....	.....
Shiawassee	10	3	2	.....	486	.....	50 00	28 69
Tuscola	5	6	12	241	1,692	271 43	10 00	189 82
Van Buren	7	2	9	173	2,107	279 25	.....	92 06
Washtenaw	8	7	5	96	1,929	163 56	.....	108 76
Wayne	6	9	2	9	2,034	86 50	.....	326 53
Wexford	3	4	8	91	752	96 63	.....	40 13

TABLE IX.

Statistics of District Libraries, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	No. Districts of less than 100 children reporting libraries.	Whole No of Volumes reported by such Districts.	No. of Districts of 100 or more children maintaining libraries.	No. of Vols. added to last mentioned libraries during year.	Whole No. of Vols. in such Libraries.	Amount paid for support of such libraries.	Amount of fines, etc., received from Co Treas. for such libraries.
Totals	921	49,270	272	20,696	180,744	$34,547 88	$22,816 44
Alcona							
Allegan	41	1,472	16	83	3,512	$141 90	$206 62
Alpena			4	36	1,568	121 00	96 72
Antrim	3	27	1	51	51	100 95	
Arenac	7	254	1		43		11 83
Baraga	2	21	2		343	32 55	96 21
Barry	13	329	1	300	500	290 71	276 90
Bay	4	342	7	722	12,787	701 63	372 80
Benzie	1	25					
Berrien	29	829	8	162	2,593	342 20	187 63
Branch	27	988					9 54
Calhoun	49	1,925	4	1,454	6,754	991 67	357 44
Cass	34	1,496	5	46	1,042	73 49	44 97
Charlevoix	1	5					
Cheboygan						157 50	
Chippewa	1	14					
Clare							
Clinton	4	122	5	5	180	30 29	51 87
Crawford	1	9					
Delta							240 59
Eaton	2	22	1	46	231	117 57	98 09
Emmet			1		20		
Genesee	32	977	4	532	4,083	1,177 23	960 67
Gladwin							
Grand Traverse	6	263					
Gratiot	7	235	2	42	413	56 94	25 15
Hillsdale	33	828	3		331		134 60
Houghton			6	487	2,428	361 15	179 02
Huron	4	48	7	144	583	165 85	45 43
Ingham	8	121	4	10	4,210	446 14	195 25
Ionia	9	251	2	25	265	120 70	65 01
Iosco	1	16	1		4		203 80
Isabella	4	211					
Isle Royal							
Jackson	29	1,435	8	128	1,016	526 74	341 87
Kalamazoo	68	3,644	4	1,425	10,372	1,626 98	913 90
Kalkaska	8	290	1	155	155	151 91	18 36
Kent	19	554	8	1,150	13,928	4,114 05	3,510 09
Keweenaw	2	760	2	66	1,173	126 41	387 50
Lake							
Lapeer	15	432	6	40	635	130 36	67 10
Leelanaw							
Lenawee	67	3,634	11	499	5,632	701 44	501 78
Livingston	4	77	1		102		19 96
Mackinac			1		200		
Macomb	10	210	9	277	2,143	138 00	65 31
Manistee	11	674	4	239	1,870	230 00	364 77
Manitou							
Marquette			7	111	6,002	262 11	
Mason	2	24	1	100	1,050	253 37	492 10
Mecosta	6	163	3	158	1,251	293 41	523 96
Menominee	1	28	1		4		52 38
Midland	8	343	2		755	109 11	110 53
Missaukee	3	68					
Monroe	5	100	4	16	2,372	329 94	59 87

TABLE IX.—*Continued.*

Counties.	No. Districts of less than 100 children reporting libraries.	Whole No. of Volumes reported by such Districts.	No. of Districts of 100 or more children maintaining libraries.	No. of Vols. added to last mentioned libraries during year.	Whole No. of Vols. in such libraries.	Amount paid for support of such libraries.	Amount of fines, etc., received from Co. Treas. for such libraries.
Montcalm	8	296	4	85	504	$19 49	$643 04
Montmorency							
Muskegon	2	131	1	809	2,888	1,525 60	517 18
Newaygo	7	270	3	3	84	28 56	
Oakland	39	1,881	3	51	639	68 33	196 85
Oceana	5	271					
Ogemaw							
Ontonagon	2	145	3	29	1,574	55 90	282 19
Osceola	1	40	1		12	434 29	6 35
Oscoda							
Otsego							
Ottawa	19	923	11	433	2,453	795 56	533 45
Presque Isle	5	314					
Roscommon							
Saginaw	35	1,731	14	626	11,142	1,676 87	1,015 99
St. Clair	27	910	6	362	1,489	510 30	135 66
St. Joseph	42	1,933	5	690	2,112	963 19	333 07
Sanilac	10	422	6		338	56 07	56 57
Schoolcraft	1	170					
Shiawassee	11	256	2	77	430	287 75	74 29
Tuscola	11	404	6	69	455	66 06	56 27
Van Buren	16	425	7	61	426	54 75	55 07
Washtenaw	8	194	5	273	3,132	494 34	411 26
Wayne	86	15,185	36	8,609	62,439	13,067 52	7,261 89
Wexford	5	103	1	10	26		

TABLE X.

Branches of Instruction, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	No. of Districts reporting.	Number of Districts in which Instruction is given in—												
		Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Gov't.	Algebra.	Geometry.	Physiology.	Nat. Philosophy.	Botany.
Totals	6,226	6,190	6,189	5,807	6,144	6,063	5,492	5,088	1,824	1,884	346	653	423	294
Alcona	11	11	11	11	11	10	7	7	2	2	1			1
Allegan	162	160	160	137	160	160	157	133	41	30	4	12	9	2
Alpena	9	9	9	9	9	9	9	9	4	3	2	2	2	2
Antrim	58	56	56	57	57	57	53	52	10	8	3	4	2	2
Arenac	16	16	16	15	16	16	14	14		2		1		
Baraga	7	7	7	7	7	7	7	7	6	5	5	5	4	4
Barry	135	135	135	115	134	132	131	98	42	52	3	6	6	3
Bay	44	44	44	44	44	44	43	41	9	4	3	5	3	2
Benzie	34	34	34	33	34	33	27	22	4	2	1	1	2	1
Berrien	147	147	147	143	147	147	139	130	29	63	11	31	15	6
Branch	120	120	120	106	118	119	114	105	43	50	3	19	8	3
Calhoun	153	153	153	151	152	152	151	122	54	73	5	19	9	6
Cass	114	112	112	111	114	114	111	100	29	52	4	17	5	3
Charlevoix	51	51	51	49	50	49	45	43	11	4		2		
Cheboygan	36	36	36	34	36	35	32	23	8	2	1	1	2	1
Chippewa	21	21	21	20	20	20	19	12	5	2		1	1	
Clare	21	21	21	21	21	21	18	13	3	1	1		1	
Clinton	120	120	120	107	120	118	114	106	30	36	3	15	5	4
Crawford	30	30	30	25	29	29	23	22	4	1				
Delta	19	19	19	19	19	17	15	9	1	1	1	1	1	1

TABLE X.—*Continued.*

Counties.	No. of Districts reporting.	Number of Districts in which Instruction is given in—												
		Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Gov't.	Algebra.	Geometry.	Physiology.	Nat. Philosophy.	Botany.
Eaton	144	143	143	119	144	144	141	124	34	40	3	4	4	3
Emmet	46	46	46	41	44	44	37	30	11	4	1	3	1	----
Genesee	155	152	152	143	155	155	154	139	45	52	4	15	7	3
Gladwin	15	15	15	15	15	15	15	11	5	----	----	----	----	----
Grand Traverse	46	43	43	43	46	46	44	32	10	5	1	4	1	1
Gratiot	117	116	116	105	114	115	109	100	24	18	3	5	3	2
Hillsdale	156	155	155	144	155	152	149	126	40	75	6	17	7	5
Houghton	17	17	17	17	17	17	14	9	6	7	5	6	5	4
Huron	83	83	83	75	82	81	71	65	27	20	4	4	3	3
Ingham	132	130	130	121	128	126	126	115	46	44	10	14	12	8
Ionia	135	135	135	128	131	127	124	109	32	44	6	17	6	8
Iosco	22	22	22	22	22	21	16	16	7	7	4	7	4	3
Isabella	88	88	88	87	88	85	74	62	26	9	4	3	2	1
Isle Royal	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Jackson	163	163	163	140	152	149	149	130	54	71	10	25	15	10
Kalamazoo	136	135	135	126	135	125	143	127	57	60	7	12	7	5
Kalkaska	45	45	45	43	45	45	41	31	16	7	----	4	3	----
Kent	189	189	189	181	186	186	182	153	66	74	6	24	11	7
Keweenaw	8	8	8	8	8	8	8	7	4	3	----	2	----	1
Lake	45	45	45	42	45	43	39	38	17	9	----	2	----	----
Lapeer	111	111	111	105	107	104	102	96	29	35	10	14	14	4
Leelanaw	46	46	46	44	45	43	34	20	10	6	----	3	1	1
Lenawee	199	199	199	184	199	197	191	173	59	65	9	13	9	6
Livingston	128	127	127	122	128	127	125	109	54	60	9	15	10	10
Mackinac	14	14	14	12	14	14	11	12	5	2	1	3	3	1
Macomb	114	114	114	113	114	112	107	96	46	41	9	15	15	7
Manistee	49	49	49	49	48	48	43	36	13	8	2	5	2	1
Manitou	5	5	5	5	5	5	5	1	----	----	----	----	----	----
Marquette	36	36	36	36	36	36	34	30	5	7	3	5	4	4
Mason	39	39	39	38	39	39	37	31	8	7	2	2	1	1
Mecosta	74	74	74	65	67	68	61	61	8	10	2	6	3	1
Menominee	19	19	19	18	19	18	16	9	3	2	1	1	1	1
Midland	51	51	51	48	48	47	45	41	11	11	4	5	5	4
Missaukee	31	31	31	30	31	28	22	24	6	1	1	1	----	----
Monroe	127	127	127	119	127	127	126	116	51	31	14	14	14	13
Montcalm	127	127	127	123	125	126	118	102	35	41	9	13	10	5
Montmorency	13	13	13	13	13	13	12	10	4	----	----	----	----	----
Muskegon	78	76	76	72	77	76	69	62	21	22	9	10	12	7
Newaygo	92	92	92	82	91	90	84	74	27	18	----	3	2	2
Oakland	191	190	190	184	191	191	187	155	80	90	19	25	24	16
Oceana	74	74	74	71	74	73	73	67	38	32	14	13	13	13
Ogemaw	31	32	31	31	31	30	27	17	6	2	----	1	----	----
Ontonagon	8	8	8	8	8	7	6	6	4	4	2	2	3	2
Osceola	73	73	73	58	70	70	58	54	20	10	8	12	7	6
Oscoda	15	15	15	15	15	15	13	8	4	1	1	1	----	----
Otsego	27	26	26	23	26	25	18	12	7	2	1	2	1	----
Ottawa	119	119	119	108	118	114	103	101	37	43	6	16	9	5
Presque Isle	21	21	21	21	21	21	13	18	6	1	----	----	1	----
Roscommon	7	7	7	7	7	6	6	6	1	1	----	----	----	----
Saginaw	129	128	128	126	128	125	121	113	22	25	4	7	6	4
St. Clair	144	143	143	143	143	144	141	125	49	52	7	24	12	7
St. Joseph	121	118	118	110	120	119	114	97	46	54	15	20	15	15
Sanilac	121	121	121	118	121	121	115	113	50	46	11	22	11	8
Schoolcraft	10	10	10	10	10	10	5	2	1	----	----	----	----	----
Shiawassee	121	121	121	113	114	114	112	103	34	28	4	5	7	3
Tuscola	127	127	127	124	127	127	122	112	36	30	11	18	11	9
Van Buren	148	145	145	136	145	141	140	123	36	44	8	15	9	5
Washtenaw	143	139	139	123	140	138	131	112	31	56	9	11	10	10
Wayne	136	135	135	131	135	134	133	109	47	47	14	16	16	14
Wexford	57	56	56	55	57	57	47	40	12	7	2	5	1	2

TABLE XI.

Private and Select Schools, and School Apparatus, as reported by School Inspectors for the Year ending September 3, 1883.

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of Teachers Employed.		Estimated Number of Pupils.	No. of Districts having Dictionaries.	No. of Districts having Globes.	No. of Districts having Maps.
		Men.	Women.				
Totals	295	137	282	22,581	2,539	1,179	1,511
Alcona					4	2	5
Allegan	8	3	5	330	73	36	33
Alpena	9		9	1,000	8	5	7
Antrim	2		2	34	12	11	16
Arenac					3	8	9
Baraga					5	2	5
Barry					64	8	14
Bay	16	6	13	1,026	20	15	26
Benzie					12	10	15
Berrien	6	2	5	162	88	32	35
Branch					51	18	20
Calhoun	1		3	150	107	25	31
Cass	1		1	6	86	28	28
Charlevoix					15	7	13
Cheboygan	2		6	405	10	6	11
Chippewa	2		8	154	3	3	2
Clare					4	2	3
Clinton	4	1	6	328	67	8	25
Crawford					3	1	1
Delta	2		2	45	10	5	8
Eaton	1		1	12	36	12	9
Emmet	1		1	20	9	3	4
Genesee	2	2	4	100	96	22	44
Gladwin					4	6	9
Grand Traverse					17	15	13
Gratiot					39	18	21
Hillsdale	2	1	1	30	84	24	33
Houghton	6	2	11	745	14	12	16
Huron	7	6	3	555	17	20	31
Ingham	5	1	5	300	53	18	13
Ionia	3	1	2	110	51	15	23
Iosco					7	5	15
Isabella	2	1	1	89	12	12	16
Isle Royal							
Jackson	6	3	9	430	88	36	56
Kalamazoo	2		8	250	56	19	19
Kalkaska					10	5	18
Kent	12	1	17	1,045	104	44	58
Keweenaw					5	5	4
Lake	2		3	74	8	7	8
Lapeer	1		1	8	53	19	32
Leelanaw					8	11	12
Lenawee	8	4	7	319	95	47	56
Livingston	7	4	8	189	39	5	16
Mackinac					3	3	6
Macomb	18	14	8	1,179	59	25	40
Manistee					20	12	17
Manitou					1	1	
Marquette	6	1	12	620	18	16	18
Mason	1		1	8	25	22	23
Mecosta	2	1	2	120	26	19	17
Menominee	1		3	75	6	6	6
Midland					5	7	15
Missaukee					7	5	16
Monroe	16	9	5	290	24	12	15

TABLE XI.—*Continued.*

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of Teachers Employed.		Estimated Number of Pupils.	No. of Districts having Dictionaries.	No. of Districts having Globes.	No. of Districts having Maps.
		Men.	Women.				
Montcalm	3		3	47	59	36	43
Montmorency	3	2	3	21			
Muskegon	2	2		100	28	26	24
Newaygo	1	3		30	29	25	24
Oakland	8	6	13	244	87	20	29
Oceana	1		1	10	46	31	26
Ogemaw					10	8	15
Ontonagon					7	6	6
Osceola	2	1	1	65	21	14	14
Oscoda							
Otsego					6	5	5
Ottawa	6	6		238	28	40	61
Presque Isle	2	2		100	2	4	4
Roscommon					1		1
Saginaw	12	11	9	884	59	43	49
St. Clair	17	9	15	845	48	21	27
St. Joseph	1		1	15	51	14	13
Sanilac	5		6	76	19	16	18
Schoolcraft					2	1	2
Shiawassee	1		1	12	38	14	16
Tuscola	1	1		100	43	16	18
Van Buren	1	5	10	200	56	18	30
Washtenaw	14	7	9	755	68	34	32
Wayne	51	19	37	8,631	68	33	38
Wexford					19	14	11

TABLE XII.

Examination and Certification of Teachers, as reported by the Secretaries of County Boards of School Examiners for the Year ending September 3, 1883.

Counties.	No. of Public examinations held by Board.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretaries' Special Certificates.	Average per cent. required to secure Certificates of each grade.			Number of Applicants receiving Certificates.				No. Licensed without experience in teaching.	No. of applicants having attended Normal School.	No. of applicants having attended Institutes during year.	No. of teachers hold'g State Certificates.	No. of teachers hold'g Normal Certificates.	Whole No. of legally qualified Teachers in County.
				First.	Second.	Third.	First.	Second.	Third.	Sec'tary's Special.						
Totals	455	13,172	3,110	.91	.82	.73	135	564	8,020	2,601	1,882	2,244	4,152	48	244	10,027
Alcona	2	19	11	.90	.80	.75	1	3	11	11	6	2	2		2	22
Allegan	7	488	89	.90	.80	.75	4	16	274	89	80	127	79	1	6	390
Alpena	3	32	9	.95	.85	.75		1	23	9	15					64
Antrim	4	73	31	.90	.85	.75	1	2	61	31	9	18	27		2	63
Arenac																
Baraga	1	7	3		.90	.80		5	2	3	1				2	9
Barry	9	275	44	.90	.80	.70	1	20	216	44	142	50	100		5	240
Bay	5	84	52	.90	.80	.75	1	16	44	35	20	10	35		1	61
Benzie	4	40	35	.95	.85	.75		2	25	25	5	3	16			52
Berrien	8	414	47	.95	.85	.75	5	9	205	45	32	107	91	4	4	252
Branch	6	300	38	.95	.85	.75	9	32	161	32	51	37	190		2	225
Calhoun	8	414	68	.90	.80	.75	7	20	237	66	56	46	136		1	263
Cass	7	438	67	.90	.80	.75	1		185	60	47	53	223		7	193
Charlevoix	5	105	33	.90	.80	.75		3	48	32	6	14	15	1		54
Cheboygan	6	50	30	.90	.80	.70	2	2	31	27	20		20			65

TABLE XII.—*Continued.*

Counties.	No. of Public examinations held by Board.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretaries' Special Certificates.	Average per cent. required to secure Certificates of each grade.			Number of Applicants receiving Certificates.				No. Licensed without experience in teaching.	No. of applicants having attended Normal School.	No. of applicants having attended Institutes during year.	No. of teachers hold'g State Certificates.	No. of teachers hold'g Normal Certificates.	Whole No. of legally qualified Teachers in County.
				First.	Second.	Third.	First.	Second.	Third.	Sec'tary's Special.						
Chippewa	2	24	10	.90	.80	.70	....	2	12	10	....	.....	.....	2	....	21
Clare	4	33	27	.....	.....	.70	....	1	22	27	4	1	1	....	1	31
Clinton	8	205	45	.85	.75	.65	....	27	110	37	35	87	83	2	3	190
Crawford	4	37	18	.90	.80	.70	....	4	13	18	9	6	3	1	1	13
Delta	3	35	43	.....	.....	.....	1	4	218	43	70	45	50	....	3	269
Eaton	8	311	70	.90	.85	.75	2	4	200	65	60	106	93	1	....	255
Emmet	4	60	40	.90	.80	.75	2	6	34	36	12	14	12	....	1	57
Genesee	10	319	30	.90	.80	.75	2	6	140	14	34	128	180	....	....	209
Gladwin	4	24	10	.90	.80	.65	....	....	19	8	5	2	8	....	....	21
G'd Traverse	5	115	4	.90	.80	.75	....	14	38	3	4	81	63	3	2	57
Gratiot	5	204	45	.90	.80	.70	2	12	140	36	20	30	83	....	3	186
Hillsdale	9	320	37	.90	.85	.75	1	12	207	34	19	96	121	1	4	284
Houghton	4	95	22	.90	.80	.75	1	4	64	22	8	22	12	1	16	91
Huron	6	139	50	.90	.80	.70	3	9	80	40	20	20	32	2	1	95
Ingham	9	320	69	.90	.80	.75	....	5	196	56	50	49	127	....	7	208
Ionia	9	383	114	.90	.85	.75	1	13	202	114	47	81	98	....	....	216
Iosco	3	39	6	.90	.80	.75	....	7	15	5	2	.....	.....	....	....	44
Isabella	6	129	85	.90	.80	.75	1	6	51	64	21	3	70	....	3	100
Isle Royal	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	9	322	100	.90	.80	.75	2	9	247	92	72	120	157	....	21	343
Kalamazoo	7	360	187	.90	.80	.75	....	2	121	126	.....	.....	80	2	3	190
Kalkaska	4	45	33	.90	.80	.75	1	6	30	30	.....	.....	.....	.....	.....	60
Kent	12	369	92	.90	.85	.75	6	17	254	73	66	22	76	2	4	201
Keweenaw	3	32	15	.90	.80	.75	1	....	10	8	.....	6	20	....	3	17
Lake	4	73	13	.95	.80	.75	....	1	63	12	21	7	22	....	....	71
Lapeer	8	548	37	.90	.80	.70	4	7	200	32	55	75	65	1	2	285
Leelanaw	4	73	24	.90	.80	.75	2	2	52	21	5	11	34	....	....	67
Lenawee	10	425	55	.95	.85	.70	3	2	292	47	.....	.....	.....	2	12	358
Livingston	8	288	24	.90	.80	.75	1	8	143	17	67	102	114	....	....	168
Mackinac	4	16	16	.90	.80	.75	1	1	9	14	3	4	3	....	1	10
Macomb	7	278	33	.90	.80	.70	1	12	171	32	25	24	138	1	4	199
Manistee	4	48	6	.95	.85	.75	....	....	48	6	9	8	25	....	....	45
Manitou	3	3	3	.90	.80	.70	....	....	2	3	3	.....	.....	....	....	5
Marquette	3	53	34	.90	.85	.80	1	1	27	34	3	.....	.....	4	6	36
Mason	4	67	40	.90	.85	.75	1	2	42	28	8	6	32	....	....	39
Mecosta	6	75	60	.90	.80	.75	....	11	50	51	5	25	75	....	3	115
Menominee	4	78	29	.90	.80	.75	3	14	27	28	17	18	31	....	....	33
Midland	3	89	60	.90	.85	.....	....	4	17	47	12	3	45	....	1	71
Missaukee	4	36	12	.90	.80	.75	....	....	22	11	.....	.....	.....	....	....	13
Monroe	8	270	36	.95	.85	.65	1	15	166	25	50	25	95	....	....	200
Montcalm	9	230	112	.90	.85	.75	5	5	176	75	25	15	125	3	5	150
M'tmorency	4	11	10	.90	.80	.75	1	....	10	10	16	1	.....	....	....	21
Muskegon	6	133	22	.90	.80	.70	6	18	70	15	23	11	42	1	5	130
Newaygo	6	144	69	.90	.85	.70	2	7	87	48	36	22	49	....	....	101
Oakland	11	413	59	.95	.85	.75	6	9	313	47	51	44	143	....	11	337
Oceana	6	120	60	.80	.75	.60	....	3	103	55	20	16	2	....	....	200
Ogemaw	4	35	8	.90	.80	.70	1	1	27	6	10	4	5	....	2	31
Ontonagon	4	37	3	.95	.85	.75	1	3	12	3	9	1	.....	....	6	22
Osceola	5	161	.....	.90	.85	.75	1	5	80	....	50	20	52	1	1	90
Oscoda	4	5	9	.....	.....	.70	....	....	15	9	2	2	.....	....	....	15
Otsego	4	59	25	.90	.80	.70	2	1	27	18	4	3	2	....	....	31
Ottawa	7	169	60	.90	.85	.75	1	16	137	60	.....	26	43	1	2	145
Presque Isle	3	9	18	.90	.80	.75	3	1	5	18	8	.....	7	....	1	28
Roscommon	4	13	5	.90	.80	.75	....	1	12	3	7	1	.....	....	....	11
Saginaw	7	260	80	.85	.75	.65	6	10	189	74	48	60	75	1	2	205
St. Clair	8	201	30	.90	.85	.75	3	10	170	8	.....	.....	.....	....	....	205
St. Joseph	6	266	41	100	.90	.75	1	22	262	41	50	30	178	2	9	300
Sanilac	7	220	50	.90	.80	.75	....	21	120	50	30	13	50	2	4	175
Schoolcraft	4	5	12	.....	.....	.75	....	....	5	12	4	2	.....	....	....	14
Shiawassee	7	262	124	.90	.90	.75	2	4	148	60	32	137	93	1	3	257
Tuscola	8	280	55	.90	.85	.80	5	15	106	46	25	56	150	2	5	182
Van Buren	8	378	.....	.....	.....	.....	3	12	213	....	.....	.....	.....	.....	.....	.....
Washtenaw	9	276	50	.90	.85	.75	2	2	203	49	52	39	96	2	17	298
Wayne	12	315	.....	.95	.85	.75	7	13	210	....	49	37	58	1	12	253
Wexford	5	92	17	.90	.85	.75	1	4	43	16	.....	.....	.....	....	....	.....

TABLE XIII.

Miscellaneous Statistics, as reported by Secretaries of County Boards of School Examiners for the Year ending September 3, 1883.

Counties.	No. of Meetings of County Teachers' Associations.	No. of Township Teachers' Meetings.	No. of Visits to Schools by Secs. at request of Township Chairman.	No. of Voluntary Visits to Schools by Secretaries.	No. of Visits by Other Examiners.	Total Amount of per Diem Compensation received by the Examiners.	Total Amount received by Secretaries for services as Secretaries.	Total Amount received by Secretaries from Applicants for Special Certificates.	Amounts Allowed by Supervisors for Stationery, Printing, Postage, etc.	Total Amount of Institute Fees Collected.
Totals	99	70	54	492	173	$11,538 00	$13,160 00	$1,779 50	$1,309 34	$5,539 70
Alcona	.....	.....	.....	3	.....	$20 00	$36 00	$5 00	.....	$12 50
Allegan	1	4	.....	3	5	216 00	364 00	89 00	.....	196 00
Alpena	.....	.....	.....	1	.....	76 00	31 00	7 00	10 00	10 50
Antrim	.....	.....	.....	3	.....	151 00	120 00	31 00	3 99	46 00
Arenac	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baraga	.....	.....	.....	1	.....	24 00	20 00	2 00	.....	5 00
Barry	2	.....	3	6	25	192 00	294 00	44 00	.....	157 00
Bay	5	.....	1	3	2	180 00	132 00	32 00	19 00	41 50
Benzie	1	.....	1	18	10	120 00	70 00	27 00	8 00	26 50
Berrien	10	.....	.....	20	2	184 00	298 00	11 00	30 75	143 50
Branch	.....	.....	1	7	.....	192 00	264 00	25 00	10 00	125 50
Calhoun	.....	.....	3	.....	.....	212 00	334 00	31 00	76 75	182 00
Cass	2	.....	.....	.....	.....	180 00	238 00	3 00	25 26	125 50
Charlevoix	1	.....	.....	2	.....	108 00	120 00	18 00	.....	48 00
Cheboygan	.....	.....	1	12	2	158 00	80 00	5 00	5 00	34 50
Chippewa	.....	.....	.....	4	2	120 00	50 00	10 00	.....	7 50
Clare	.....	.....	1	4	2	136 00	63 00	21 50	.....	20 50
Clinton	3	5	.....	18	3	192 00	260 00	35 00	70 00	90 00
Crawford	.....	.....	.....	3	.....	118 00	44 50	12 50	3 06	20 50
Delta	.....	.....	.....	.....	.....	116 00	38 00	8 00	.....	26 50
Eaton	1	.....	1	3	.....	96 00	288 00	6 00	35 00	165 50
Emmet	2	.....	.....	20	.....	60 00	104 00	18 00	10 55	45 50
Genesee	.....	.....	1	18	.....	204 00	322 00	24 00	.....	137 00
Gladwin	.....	.....	.....	1	.....	72 00	34 00	8 00	1 50	13 00
G. Traverse	1	.....	.....	10	.....	156 00	118 00	3 00	.....	48 50
Gratiot	2	.....	.....	2	.....	180 00	238 00	36 00	18 00	100 00
Hillsdale	3	.....	1	3	.....	248 00	350 00	45 00	18 60	196 50
Houghton	1	.....	.....	2	.....	144 00	40 00	.....	35 00	46 50
Huron	.....	.....	1	12	.....	48 00	200 00	10 00	20 00	49 50
Ingham	4	.....	1	14	.....	192 00	266 00	26 00	.....	147 50
Ionia	3	2	2	1	.....	158 00	288 00	10 50	24 00	171 50
Iosco	.....	.....	4	.....	.....	12 00	40 00	4 00	.....	16 00
Isabella	.....	.....	.....	5	.....	112 00	172 00	50 00	3 00	55 00
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	.....	.....	3	5	2	256 00	320 00	85 00	25 00	185 70
Kalamazoo	5	.....	.....	12	.....	180 00	280 00	37 50	.....	129 50
Kalkaska	2	.....	.....	.....	.....	48 00	92 00	30 00	.....	.....
Kent	1	.....	8	24	21	600 00	420 00	73 00	300 00	193 50
Keweenaw	1	.....	.....	.....	.....	88 00	22 00	8 00	5 81	5 00
Lake	.....	.....	.....	3	2	132 00	96 00	2 00	5 00	35 50
Lapeer	4	8	.....	7	5	192 00	272 00	10 00	15 00	125 00
Leelanaw	3	.....	.....	6	.....	144 00	100 00	15 00	9 00	38 50
Lenawee	2	.....	1	25	15	216 00	398 00	43 00	100 00	.....
Livingston	2	3	4	26	3	84 00	266 00	16 00	16 00	156 00
Mackinac	.....	.....	.....	3	.....	144 00	44 00	14 00	.....	18 00
Macomb	2	.....	.....	10	8	180 00	228 00	32 00	53 00	111 50
Manistee	10	.....	1	.....	6	60 00	94 00	6 00	.....	12 00
Manitou	.....	.....	.....	.....	1	48 00	14 00	2 00	4 00	3 50
Marquette	.....	.....	1	.....	.....	168 00	70 00	34 00	30 25	38 50
Mason	.....	.....	.....	10	.....	120 00	96 00	15 00	18 00	34 50
Mecosta	2	15	1	15	10	155 00	170 00	60 00	70 00	73 50
Menominee	.....	.....	.....	6	.....	48 00	50 00	12 00	.....	35 50
Midland	.....	.....	.....	2	.....	128 00	94 00	16 50	.....	36 00
Missaukee	.....	.....	.....	.....	.....	48 00	68 00	11 00	.....	.....
Monroe	.....	.....	1	10	.....	204 00	276 00	20 00	.....	119 50

TABLE XIII.—*Continued.*

Counties.	No. of Meetings of County Teachers' Associations.	No. of Township Teachers' Meetings.	No. of Visits to Schools by Secs. at request of Township Chairman.	No. of Voluntary Visits to Schools by Secretaries.	No. of Visits by Other Examiners.	Total Amount of per Diem Compensation received by the Examiners.	Total Amount received by Secretaries for services as Secretaries.	Total Amount received by Secretaries from Applicants for Special Certificates.	Amounts Allowed by Supervisors for Stationery, Printing, Postage, etc.	Total Amount of Institute Fees Collected.
Montcalm	------	1	* 2	5	------	$168 00	$272 00	$75 00	----------	$114 00
Montmorency	------	------	------	6	4	12 00	26 00	10 00	----------	12 00
Muskegon	------	------	------	3	------	264 00	162 00	15 00	$75 00	52 50
Newaygo	------	------	2	5	------	168 00	188 00	48 00	----------	72 50
Oakland	4	------	1	4	5	252 00	436 00	27 00	----------	228 00
Oceana	2	------	------	5	------	168 00	170 00	30 00	----------	80 00
Ogemaw	------	------	------	10	7	100 00	56 00	11 00	----------	19 50
Ontonagon	------	------	------	------	------	136 00	24 00	3 00	----------	9 50
Osceola	6	------	------	------	------	144 00	152 00	----------	----------	----------
Oscoda	------	------	------	3	------	48 00	43 00	2 00	26 50	9 00
Otsego	------	26	1	8	------	108 00	74 00	16 00	15 00	15 00
Ottawa	------	------	------	------	------	282 00	234 00	60 00	20 00	110 00
Presque Isle	------	------	2	3	2	108 00	100 00	18 00	3 70	18 50
Roscommon	------	------	------	5	------	----------	4 50	2 00	----------	12 50
Saginaw	2	------	2	2	------	192 00	286 00	80 00	----------	134 50
St. Clair	1	------	------	20	------	----------	300 00	8 00	----------	117 00
St. Joseph	------	6	------	------	------	272 00	----------	30 00	----------	161 00
Sanilac	2	------	------	------	------	248 00	248 00	13 00	----------	107 50
Schoolcraft	------	------	------	------	------	24 00	20 00	----------	62	7 00
Shiawassee	2	------	1	27	1	180 00	240 00	36 00	25 00	143 50
Tuscola	------	------	1	15	25	180 00	258 00	40 00	----------	120 50
Van Buren	------	------	------	------	------	180 00	310 00	----------	----------	----------
Washtenaw	------	------	------	------	------	204 00	332 00	39 00	35 00	144 50
Wayne	2	------	------	5	3	336 00	318 00	----------	30 00	----------
Wexford	2	------	------	3	------	144 00	120 00	17 00	----------	----------

TABLE XIV.

Graded School Statistics, Compiled from School Inspectors' Reports for the Year ending September 3, 1883.

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.
					Men.	Women.		
Totals.....433	.....	254,712	$6,758,662 00	$1,200,437 20	$75 19	$38 56	$2,305,906 36	$1,115,218 74
Ada	Kent	131	$7,000 00	$702 00	$50 00	$28 00	$1,838 29	$2,500 00
Addison	Lenawee	102	2,000 00	756 00	60 00	24 00	896 04	----------
Adrian	Lenawee	2,605	104,000 00	13,731 12	128 60	34 03	29,780 85	----------
Alaska	Kent	102	2,000 00	465 00	45 00	20 00	1,066 15	400 00
Albion	Calhoun	865	45,000 00	4,809 00	122 20	29 91	10,259 13	8,200 00
Alcona	Alcona	134	1,500 00	544 00	------	36 26	1,213 90	450 00
Algonac	St. Clair	311	8,000 00	1,350 00	70 00	26 66	1,859 10	----------
Allegan	Allegan	764	22,700 00	4,124 00	80 00	30 56	5,728 50	----------
Allen	Hillsdale	108	10,000 00	725 00	55 50	25 00	3,155 33	2,980 00
Alma	Gratiot	367	5,000 00	1,150 00	60 00	24 33	2,337 52	3,020 00
Almont	Lapeer	301	----------	1,724 00	80 00	30 80	2,835 31	----------
Alpena	Alpena	2,353	35,000 00	9,120 00	90 00	46 62	18,821 85	----------
Ann Arbor	Washtenaw	2,802	160,000 00	20,768 00	125 75	38 56	38,122 03	21,000 00
Armada	Macomb	194	6,000 00	1,475 00	77 77	31 00	1,957 49	200 00
Athens	Calhoun	125	4,000 00	1,131 87	86 94	38 81	1,305 47	----------
Atlantic Mine	Houghton	257	2,000 00	1,150 00	75 00	40 00	1,819 21	----------
Attica	Lapeer	263	1,600 00	720 00	50 00	30 00	841 50	----------
Augusta	Kalamazoo	201	800 00	1,224 50	59 37	28 08	1,473 90	----------
Au Sable	Iosco	548	3,500 00	1,500 00	70 00	40 00	2,419 16	2,500 00
Bad Axe	Huron	156	500 00	360 00	------	40 00	726 32	3,465 00

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.
					Men.	Women.		
Baldwin	Lake	118	$3,000 00	$720 00	.....	$45 00	$2,490 52	$2,500 00
Bancroft	Shiawassee	178	2,000 00	835 00	$50 00	33 50	1,405 92	.....
Bangor Tp., No. 2 fl.	Van Buren	290	2,600 00	1,708 00	77 77	28 28	2,728 78	.....
Bangor Tp., No. 3 fl.	Van Buren	105	1,000 00	570 00	45 00	21 00	689 37	.....
Bath	Clinton	147	4,000 00	692 00	42 12	27 14	1,441 10	825 50
Battle Creek	Calhoun	2,238	160,000 00	12,775 63	91 07	35 80	33,121 20	61,000 00
Bay City	Bay	6,762	151,000 00	22,033 00	200 00	36 42	47,440 04	5,700 00
Beacon	Marquette	487	16,400 00	3,400 00	100 00	60 00	20,266 72	8,000 00
Bear Lake	Manistee	164	4,000 00	720 00	.....	48 00	4,803 31	4,257 50
Belding	Ionia	195	6,000 00	1,300 00	77 77	31 57	3,095 92	2,000 00
Belleville	Wayne	192	5,000 00	1,024 00	62 40	20 00	1,604 26	.....
Bellevue	Eaton	255	7,000 00	1,332 00	60 00	29 33	3,261 79	4,150 00
Benton Harbor	Berrien	644	20,000 00	3,163 75	88 88	31 94	3,845 99	.....
Berlin	Ottawa	140	600 00	585 00	40 00	25 00	945 04	.....
Berrien Springs	Berrien	263	9,000 00	1,695 00	83 33	26 25	2,501 97	2,500 00
Big Rapids	Mecosta	1,317	35,494 00	6,877 50	150 00	36 83	20,477 81	7,000 00
Birmingham	Oakland	316	15,000 00	1,979 00	60 00	27 58	2,561 21	.....
Blissfield, No. 1 fl.	Lenawee	226	6,000 00	1,280 00	60 00	22 66	2,987 45	2,400 00
Blissfield, No. 2 fl.	Lenawee	185	3,600 00	1,004 00	60 00	29 11	1,882 61	321 00
Bloomingdale	Van Buren	191	4,500 00	923 00	46 94	29 44	4,904 38	3,000 00
Bluffton	Muskegon	160	1,000 00	900 00	60 00	30 00	1,137 37	.....
Boyne City	Charlevoix	165	700 00	635 00	42 85	25 00	3,625 86	3,200 00
Breckenridge	Gratiot	124	1,200 00	495 00	.....	27 94	723 71	1,250 00
Breedsville	Van Buren	103	1,000 00	600 00	84 50	28 00	698 63	.....
Bridgeport	Saginaw	139	3,000 00	657 00	45 00	31 50	756 72	.....
Brighton	Livingston	265	15,000 00	2,070 00	100 00	26 75	2,685 19	.....
Brockway Centre	St. Clair	217	2,000 00	500 00	50 00	.....	623 54	.....
Bronson	Branch	246	4,000 00	1,507 00	76 22	27 36	1,784 64	.....
Brooklyn	Jackson	192	12,000 00	1,940 00	65 00	32 00	2,699 41	.....
Buchanan	Berrien	591	40,000 00	3,147 50	100 00	31 21	8,109 39	14,000 00
Buel	Sanilac	111	900 00	405 00	35 00	21 60	470 10	.....
Buena Vista Tp., No. 6	Saginaw	226	4,000 00	725 00	50 00	22 50	1,312 10	.....
Burlington	Calhoun	106	3,000 00	719 00	40 00	39 66	950 15	.....
Burr Oak	St. Joseph	238	15,000 00	1,530 00	70 00	25 00	4,208 88	159 01
Byron	Shiawassee	118	5,000 00	937 00	62 50	24 00	1,077 52	.....
Cadillac	Wexford	851	10,285 00	3,342 50	100 00	33 82	6,723 49	1,000 00
Caledonia	Kent	179	2,000 00	1,000 00	37 50	25 00	1,089 87	.....
Calumet	Houghton	2,443	600 00	12,905 05	98 10	49 37	18,846 21	.....
Calumet Tp., No. 2	Houghton	385	2,500 00	1,809 00	95 00	42 44	2,908 61	.....
Cannonsburg	Kent	120	1,200 00	525 00	38 88	18 44	595 59	.....
Capac	St. Clair	244	10,000 00	1,050 00	50 00	27 50	1,910 09	6,000 00
Carleton	Monroe	224	4,000 00	778 00	40 00	25 40	1,524 08	.....
Caro	Tuscola	500	5,000 00	2,800 00	90 00	31 66	4,688 76	3,000 00
Carrollton	Saginaw	376	2,000 00	1,092 50	55 00	27 15	1,360 36	.....
Carson City	Montcalm	295	2,500 00	1,468 00	70 00	28 44	3,657 15	.....
Caseville	Huron	242	5,000 00	1,400 00	80 00	30 00	2,083 14	1,000 00
Casnovia	Muskegon	103	3,200 00	680 00	55 00	30 00	289 33	700 00
Cass City	Tuscola	208	1,000 00	1,008 00	66 66	24 00	1,240 36	.....
Cassopolis	Cass	262	12,000 00	2,471 00	87 50	33 95	7,034 59	4,200 00
Cedar Springs	Kent	372	20,000 00	2,280 00	80 00	37 00	5,926 64	9,000 00
Central Mine	Keweenaw	319	8,500 00	1,625 00	104 00	39 00	2,374 58	.....
Centreville	St. Joseph	273	20,000 00	2,155 00	52 86	30 68	6,701 71	4,500 00
Ceresco	Calhoun	112	1,100 00	490 00	.....	27 22	580 78	.....
Charlevoix	Charlevoix	320	5,000 00	1,530 00	75 00	31 51	2,046 50	.....
Charlotte	Eaton	873	25,000 00	7,306 51	50 00	44 49	11,519 02	3,500 00
Chase	Lake	274	3,000 00	920 00	55 00	30 00	2,153 74	749 00
Cheboygan	Cheboygan	679	12,000 00	2,265 00	75 00	26 38	5,493 71	8,000 00
Chelsea	Washtenaw	401	8,000 00	2,377 50	100 00	25 04	3,993 65	.....
Chesaning	Saginaw	362	12,000 00	1,696 00	70 00	26 76	2,701 76	7,000 00
Chickaming Tp., No. 3	Berrien	140	800 00	180 00	.....	30 00	422 56	350 00
Clare	Clare	258	2,500 00	976 25	53 36	27 44	1,775 77	350 00
Clarkston	Oakland	167	4,000 00	1,019 00	55 50	23 20	3,542 43	1,000 00
Clayton	Lenawee	135	6,000 00	822 50	61 39	30 00	913 99	.....
Clifton	Keweenaw	63	2,000 00	1,400 00	90 00	50 00	2,135 70	.....
Climax	Kalamazoo	128	1,000 00	662 50	57 50	31 25	778 02	.....

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Clinton	Lenawee	265	$6,000 00	$1,962 00	$80 00	$20 05	$2,510 27	.....
Clio	Genesee	207	500 00	570 00	40 00	23 33	800 70	.....
Coldwater	Branch	1,257	50,000 00	9,717 20	93 33	36 41	12,279 71	.....
Coloma	Berrien	160	700 00	446 75	45 00	22 23	599 73	.....
Colon	St. Joseph	169	3,000 00	1,160 00	60 00	28 00	2,132 04	$1,500 00
Columbiaville	Lapeer	135	1,000 00	628 00	41 78	28 00	1,040 24	.....
Commerce	Oakland	57	500 00	432 50	43 12	29 17	517 25	.....
Concord	Jackson	189	7,000 00	1,710 00	75 00	32 00	2,330 92	7,000 00
Constantine	St Joseph	350	35,000 00	3,410 00	78 50	30 67	4,219 81	.....
Coopersville	Ottawa	287	6,300 00	865 00	57 85	20 00	2,506 12	1,144 50
Coral	Montcalm	202	2,600 00	787 50	50 00	28 75	3,198 97	.....
Corunna	Shiawassee	400	28,500 00	2,727 80	100 00	32 00	18,000 23	12,000 00
Covert	Van Buren	143	1,800 00	663 75	.....	34 93	841 13	.....
Croswell	Sanilac	219	560 00	675 00	50 00	25 00	812 52	.....
Crystal Falls	Marquette	212	8,000 00	1,101 87	81 41	58 94	7,291 02	8,000 00
Dansville	Ingham	157	4,000 00	1,447 00	60 00	28 23	2,035 20	225 00
Davisburg	Oakland	86	1,200 00	479 00	41 43	27 00	627 29	.....
Dearborn	Wayne	301	2,500 00	870 00	66 67	30 00	1,178 06	214 00
Decatur	Van Buren	37	10,000 00	2,565 00	85 00	28 58	3,420 78	.....
Deckerville	Sanilac	270	500 00	442 80	31 63	.....	525 53	.....
Deerfield	Lenawee	289	6,000 00	1,528 00	77 78	23 00	2,180 14	242 00
Detroit	Wayne	43,840	929,750 00	167,410 20	99 13	53 80	339,065 89	.....
De Witt	Clinton	130	10,000 00	689 50	50 00	26 61	885 82	.....
Dexter	Washtenaw	401	8,000 00	2,640 00	70 00	24 80	3,195 33	.....
Dimondale	Eaton	127	2,000 00	194 00	37 50	27 00	1,155 37	.....
Douglas	Allegan	189	5,000 00	1,400 00	79 09	29 44	1,724 70	.....
Dowagiac	Cass	578	18,000 00	3,673 25	56 74	32 69	8,227 81	5 00
Dryden	Lapeer	158	4,000 00	716 00	43 00	20 00	827 06	.....
Dundee	Monroe	400	1,800 00	1,665 00	70 00	25 39	2,144 06	10,000 00
East Saginaw	Saginaw	7,323	218,635 00	32,784 00	117 13	41 91	59,450 19	.....
East Tawas	Iosco	367	4,000 00	2,305 00	100 00	33 47	4,967 55	4,000 00
Eaton Rapids	Eaton	552	32,000 00	2,824 50	88 89	31 63	8,340 43	20,000 00
Ecorse	Wayne	174	3,900 00	580 50	.....	32 22	285 45	.....
Edmore	Montcalm	372	1,800 00	1,580 00	60 00	32 67	4,948 85	500 00
Edwardsburg	Cass	170	2,000 00	1,035 00	55 00	30 00	1,264 69	.....
Elk Rapids	Antrim	384	13,500 00	2,950 00	88 88	45 74	4,706 15	.....
Elm Hall	Gratiot	181	2,800 00	697 00	49 44	28 00	2,996 72	2,000 00
Elsie	Clinton	187	1,000 00	954 00	80 00	25 55	1,087 97	.....
Erie	Monroe	187	1,500 00	685 00	.....	29 78	2,513 65	3,200 00
Escanaba	Delta	819	33,000 00	1,545 00	100 00	37 63	6,653 16	30,664 52
Essexville	Bay	358	7,000 00	1,525 00	70 00	41 25	3,074 03	1,080 00
Evart	Osceola	330	8,000 00	2,190 00	75 00	36 00	4,332 18	.....
Fairfield	Lenawee	101	3,000 00	462 50	40 00	23 33	666 60	1,200 00
Farmers	Sanilac	119	600 00	295 00	35 00	30 00	342 43	.....
Farmington	Oakland	145	600 00	868 25	46 82	20 00	993 07	1 93
Farwell	Clare	196	4,000 00	1,134 00	48 05	30 00	2,156 04	600 00
Fennville	Allegan	158	1,600 00	447 75	45 00	18 40	586 46	.....
Fentonville	Genesee	798	40,000 00	4,700 00	70 00	36 67	5,923 53	.....
Ferrysburg	Ottawa	268	1,500 00	990 00	54 00	22 50	1,219 82	.....
Fillmore Centre	Allegan	183	1,100 00	463 00	.....	28 93	805 52	.....
Fillmore Tp., No. 1	Allegan	167	2,000 00	420 87	46 76	.....	519 72	.....
Flat Rock	Wayne	208	14,000 00	1,076 50	60 00	23 82	1,298 18	.....
Flint	Genesee	2,441	123,000 00	15,456 25	104 85	36 75	29,045 40	76,000 00
Flushing	Genesee	250	7,000 00	1,852 75	62 07	30 00	2,337 61	.....
Forester	Sanilac	153	1,300 00	362 50	36 25	.....	979 51	200 00
Forestville	Sanilac	164	1,200 00	418 00	.....	27 87	476 43	.....
Fort Gratiot	St. Clair	614	10,000 00	2,475 00	72 50	35 00	5,287 26	2,240 00
Fowler	Clinton	127	1,800 00	700 00	50 00	27 78	800 04	.....
Fowlerville	Livingston	338	2,500 00	1,820 00	70 00	28 72	2,376 99	.....
Frankfort	Benzie	351	3,500 00	1,690 00	73 00	32 17	3,294 56	600 00
Franklin Tp., No. 1	Houghton	382	800 00	1,625 00	85 00	38 75	2,436 27	.....
Franklin Tp., No. 2	Houghton	249	3,000 00	1,700 00	75 00	47 50	2,407 88	.....
Franklin Tp., No. 5	Houghton	407	1,500 00	1,700 00	85 00	42 50	2,290 59	.....
Freeland	Saginaw	120	3,000 00	678 25	49 78	28 00	845 56	.....
Freeport	Barry	104	1,500 00	330 50	45 00	18 81	379 72	45 00

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.
					Men.	Women.		
Fremont	Newaygo	380	$8,000 00	$1,882 00	$65 00	$31 59	$2,790 18	$3,000 00
Fruitport	Muskegon	114	600 00	750 00	58 11	25 00	1,289 69	800 00
Gaines Station	Genesee	155	500 00	859 60	55 00	24 00	890 71	
Galesburg	Kalamazoo	213	10,000 00	1,660 00	70 00	32 00	2,322 00	
Galien	Berrien	184	4,000 00	975 00	77 78	25 00	1,617 23	
Gaylord	Otsego	210	1,600 00	896 50	50 00	29 77	1,696 83	905 81
Gibraltar	Wayne	81	3,400 00	300 00	33 33	.....	439 31	
Girard	Branch	82	1,500 00	570 00	33 33	30 00	665 62	
Gobleville	Van Buren	157	3,000 00	680 00	55 55	20 00	979 75	
Goodrich	Genesee	83	2,400 00	514 50	47 92	25 22	657 66	
Graafschap	Allegan	204	640 00	645 00	45 00	19 30	778 61	
Grand Blanc	Genesee	111	3,000 00	511 00	39 50	27 85	583 11	
Grand Haven	Ottawa	1,962	55,000 00	9,555 21	100 00	39 68	19,312 93	7,000 00
Grand Ledge	Eaton	400	3,000 00	1,960 00	77 78	30 00	2,451 45	
Grand Rapids	Kent	11,910	519,600 00	67,102 63	124 44	43 00	133,708 30	89,000 00
G'd Rapids Tp., No. 1	Kent	382	6,000 00	1,290 00	70 00	29 50	2,234 12	4,500 00
G'd Rapids Tp., No. 6	Kent	192	2,600 00	598 25	.....	29 91	347 00	
G'd Rapids Tp., No. 15	Kent	213	3,300 00	345 00	45 00	30 00	3,540 79	2,950 00
Grandville	Kent	339	10,000 00	2,168 00	80 00	31 09	2,815 96	
Grass Lake	Jackson	230	9,000 00	1,819 00	90 00	27 03	2,698 30	900 00
Grattan	Kent	101	2,000 00	495 00	50 00	24 37	639 94	
Greenland Tp., No. 1	Ontonagon	108	1,000 00	1,050 00	75 00	30 00	1,307 03	
Greenland Tp., No. 2	Ontonagon	119	.....	1,100 00	75 00	35 00	2,455 18	
Greenland Tp., No. 2 fl	Ontonagon	99	800 00	1,100 00	75 00	25 00	2,637 95	
Greenville	Montcalm	843	45,000 00	6,729 00	87 50	38 30	12,510 98	4,000 00
Grindstone City	Huron	218	1,500 00	700 00	50 00	20 00	910 54	540 00
Grosse Isle	Wayne	228	3,000 00	1,135 00	60 71	33 81	1,135 00	1,130 00
Hadley	Lapeer	131	3,000 00	770 00	55 55	30 00	856 68	
Hamtramck Tp., No. 5	Wayne	768	4,000 00	1,750 00	70 00	35 00	2,264 11	
Hancock	Houghton	1,184	26,000 00	5,783 00	91 96	54 57	13,593 13	15,000 00
Hanover	Jackson	159	8,000 00	1,700 00	70 00	33 33	2,255 86	
Harbor Springs	Emmet	347	8,000 00	1,140 00	50 00	30 00	2,458 38	2,425 00
Harrison	Clare	165	3,000 00	820 95	47 88	26 00	2,113 23	
Harrisville	Alcona	253	6,500 00	1,550 00	80 00	37 50	2,000 50	
Hart	Oceana	229	3,000 00	1,340 00	70 00	27 30	1,664 67	
Hartford	Van Buren	303	6,000 00	1,852 00	77 77	32 00	2,491 78	
Hartland	Livingston	92	3,500 00	703 50	45 00	25 35	851 44	
Hastings	Barry	784	40,000 00	4,990 00	110 00	31 66	9,032 26	23,000 00
Hersey	Osceola	171	2,000 00	1,150 00	60 00	27 50	1,503 70	
Hesperia	Newaygo	225	4,000 00	688 00	51 14	30 00	1,634 97	1,750 00
Highland Station	Oakland	154	1,800 00	640 00	40 00	24 00	997 34	200 00
Hillsdale	Hillsdale	909	5,000 00	5,335 00	86 84	35 43	8,080 34	
Holland	Ottawa	1,046	20,000 00	3,800 00	70 00	28 18	10,342 17	16,000 00
Holland Tp., No. 1	Ottawa	151	1,200 00	357 75	.....	35 77	601 73	83 79
Holland Tp., No. 9	Ottawa	126	1,500 00	325 00	32 50	.....	927 89	560 00
Holly	Oakland	356	25,000 00	2,780 00	100 00	29 66	4,116 62	2,070 00
Holt	Ingham	136	2,400 00	573 90	43 12	25 33	648 90	
Homer	Calhoun	294	7,500 00	2,000 00	80 00	30 00	2,420 40	
Horton	Jackson	121	3,500 00	702 00	50 00	28 00	869 11	
Houghton	Houghton	1,103	40,500 00	3,679 00	112 50	49 41	12,877 29	
Howard City	Montcalm	256	2,000 00	1,500 00	80 00	35 00	2,095 57	
Howell	Livingston	651	25,000 00	4,032 00	100 00	33 69	8,392 61	12,028 00
Hubbardston	Ionia	203	5,000 00	1,170 00	55 00	37 50	2,264 75	4,500 00
Hudson	Lenawee	407	10,000 00	2,271 40	74 18	34 07	4,697 72	
Hudson Tp., No. 5	Lenawee	196	5,000 00	1,382 00	66 67	30 08	1,975 16	
Humboldt	Marquette	212	4,000 00	1,150 00	75 00	40 00	3,461 41	64 08
Ida	Monroe	136	1,500 00	435 00	45 00	23 33	557 91	
Imlay City	Lapeer	383	5,000 00	1,575 00	75 00	27 50	1,910 90	500 00
Inverness Tp., No. 3 fl	Cheboygan	201	2,000 00	240 00	71 75	30 00	208 71	
Ionia	Ionia	1,232	33,000 00	8,354 25	85 00	39 14	16,088 54	4,000 00
Ironton	Charlevoix	171	3,000 00	490 00	40 00	30 00	4,067 91	2,100 00
Ishpeming	Marquette	1,774	27,000 00	8,698 00	200 00	44 95	11,013 52	
Ithaca	Gratiot	407	15,100 00	1,394 00	65 00	29 70	15,871 17	15,000 00
Jackson, No. 1	Jackson	2,590	110,000 00	20,080 19	18 06	43 74	29,947 75	4,000 00
Jackson, No. 17	Jackson	2,227	50,000 00	7,987 50	120 00	34 40	11,476 33	

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Jonesville	Hillsdale	624	$40,000 00	$2,906 00	$75 64	$38 56	$4,001 85	
Kalamazoo	Kalamazoo	3,632	135,000 00	15,162 75	116 60	38 39	42,431 53	$20,000 00
Kalkaska	Kalkaska	226	4,000 00	1,454 75	61 11	34 79	2,203 03	
Keelersville	Van Buren	84	2,000 00	448 00	32 00	24 00	544 50	
Laingsburg	Shiawassee	193	1,000 00	1,110 00	45 00	33 00	1,333 34	
Lake Linden	Houghton	958		7,700 00	120 00	54 16	10,813 15	
Lakeside Tp., No. 3	Muskegon	420	2,000 00	1,590 00	57 00	35 16	2,563 41	
Laketown Tp., No. 1	Allegan	142	500 00	430 00	50 00	20 00	551 93	
Lakeview	Montcalm	248	1,200 00	1,500 00	55 00	31 66	1,955 01	
Lambertville	Monroe	106	1,500 00	388 37	40 00	25 37	433 65	
Lamont	Ottawa	109	2,500 00	510 00	43 33	20 00	651 84	
L'Anse	Baraga	345	10,000 00	2,100 00	90 00	40 00	4,677 26	6,500 00
Lansing	Ingham	2,436	125,000 00	13,360 00	147 36	37 98	28,050 44	48,000 00
Lapeer	Lapeer	783	35,000 00	5,650 00	85 00	30 38	8,290 81	
Lawrence	Van Buren	198	12,000 00	1,380 00	45 76	30 88	1,666 16	
Lawton	Van Buren	259	15,000 00	1,271 80	50 00	27 56	1,833 56	
Leland	Leelanaw	126	1,000 00	240 00	53 12	30 00	265 75	154 00
Leslie	Ingham	444	15,000 00	2,465 50	90 00	31 30	3,138 43	
Lexington	Sanilac	333	5,000 00	1,749 35	70 00	26 23	2,462 67	
Linden	Genesee	179	1,000 00	979 00	47 90	25 00	1,143 70	
Lisbon	Ottawa	125	2,000 00	900 00	60 00	30 00	1,152 59	
Litchfield	Hillsdale	238	2,000 00	1,387 50	66 66	33 24	1,647 66	
Lowell	Kent	709	12,000 00	3,328 00	58 40	30 84	5,171 29	
Ludington	Mason	1,226	22,000 00	7,187 75	72 50	40 98	14,182 44	7,150 00
Lyons	Ionia	194	2,500 00	1,282 50	74 16	33 49	1,604 46	
McBrides	Montcalm	281	2,000 00	604 00	78 88	28 22	1,568 99	1,000 00
Mackinac	Mackinac	250	2,000 00	725 00	70 31	32 81	956 33	
Macon	Lenawee	102	2,000 00	566 00	38 88	24 00	650 46	
Mancelona	Antrim	257	5,000 00	818 75	51 96	32 50	2,254 02	3,235 50
Manchester	Washtenaw	416	25,000 00	3,090 00	74 50	32 08	3,906 86	
Manistee	Manistee	2,802	50,000 00	13,210 00	107 08	47 71	37,150 81	8,000 00
Manistee Tp., No. 1	Manistee	293	3,600 00	743 00		39 10	3,878 26	2,500 00
Manistique	Schoolcraft	336	3,500 00	1,512 00		56 28	2,221 19	
Manton	Wexford	92	1,000 00	680 00	53 75	31 25	991 21	
Maple Rapids	Clinton	231	3,000 00	1,449 87	62 29	30 66	2,723 82	
Marcellus	Cass	187	6,500 00	900 00	50 00	25 00	2,433 92	5,120 00
Marine City	St. Clair	723	10,000 00	1,770 00	77 77	26 78	3,502 39	200 00
Mariette	Sanilac	297	5,500 00	1,050 00	66 66	25 00	1,724 53	
Marquette	Marquette	1,928	50,000 00	8,500 00	170 00	40 00	17,947 32	49,300 00
Marshall	Calhoun	1,230	100,000 00	7,882 75	140 00	30 77	16,692 96	19,000 00
Marysville	St. Clair	144	2,500 00	666 00	50 00	24 00	841 72	
Mason	Ingham	551	18,000 00	3,420 80	100 00	30 26	4,680 74	
Mattawan	Van Buren	90	3,000 00	482 50	50 00	30 00	648 54	
Mears	Oceana	198	1,200 00	585 00	40 00	25 00	702 10	
Mecosta	Mecosta	223	12,500 00	442 50	39 71	32 90	1,517 78	15 00
Memphis	Macomb	282	8,000 00	1,120 00	60 00	26 00	1,463 85	
Mendon	St. Joseph	282	12,000 00	1,760 00	60 00	29 00	3,972 23	3,300 00
Menominee	Menominee	1,170	32,000 00	4,890 00	142 00	39 89	11,999 52	10,000 00
Metamora	Lapeer	126	3,500 00	692 80	52 11	24 86	974 58	
Michigamme	Marquette	346	6,500 00	1,522 50	75 00	38 62	3,323 95	
Middleville	Barry	255	14,000 00	1,550 00	65 00	30 00	325 10	10,000 00
Midland, No. 3	Midland	523	23,000 00	3,065 00	100 00	29 50	9,670 93	6,000,90
Midland, No. 6	Midland	147	2,000 00	459 00	37 50	32 00	729 42	
Milford	Oakland	411	12,000 00	2,272 00	48 93	24 50	7,123 36	10,500 00
Millburg	Berrien	97	3,000 00	585 00	45 00	25 00	686 86	
Millington	Tuscola	210	700 00	675 00	45 00	30 00	801 31	
Monroe	Monroe	1,638	15,800 00	3,650 00	60 00	30 83	5,334 86	
Montague	Muskegon	537	15,000 00	2,375 00	90 00	36 87	6,732 50	5,000 00
Morenci	Lenawee	351	15,000 00	1,716 00	66 66	24 80	3,938 51	3,400 00
Morley	Mecosta	160	1,800 00	765 00	50 00	35 00	1,346 98	220 00
Moscow	Hillsdale	105	1,200 00	483 74	41 25	18 00	556 53	
Moscow Tp., No. 1 fl	Hillsdale	85	1,000 00	372 85	34 79	13 67	480 50	
Mount Clemens	Macomb	1,195	22,500 00	3,560 00	120 00	29 50	5,347 56	
Mount Morris	Genesee	201	2,500 00	621 00	50 55	24 00	865 10	
Mount Pleasant	Isabella	483	16,000 00	2,620 00	100 00	30 24	329 01	13,500 00

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Muir	Ionia	191	$1,500 00	$1,226 00	$72 22	$32 00	$1,525 17	$2,000 00
Muskegon	Muskegon	4,902	114,446 00	20,372 12	83 33	35 36	53,599 93	25,000 00
Napoleon	Jackson	153	5,000 00	1,308 00	60 00	30 78	1,594 27	
Nashville	Barry	283	2,000 00	1,260 00	60 00	24 83	1,577 14	
National Mine	Marquette	265	5,000 00	1,950 00	100 00	47 50	4,389 07	1,700 00
Negaunee	Marquette	1,375	16,000 00	6,238 00	130 00	41 15	11,564 56	
Newaygo	Newaygo	434	4,000 00	1,916 00	63 00	32 80	2,760 12	
New Baltimore	Macomb	399	24,000 00	1,053 00	66 67	25 17	1,657 90	
New Buffalo	Berrien	212	4,000 00	1,080 00	65 00	35 00	1,890 69	
New Groningen	Ottawa	147	1,800 00	472 00	40 00	18 00	1,483 08	800 00
New Haven	Macomb	237	1,500 00	918 00	50 00	26 00	1,216 37	41 37
New Holland	Ottawa	194	1,900 00	530 80	43 00	20 09	736 56	107 00
New Hudson	Oakland	69	7,000 00	414 00	32 67	20 00	564 50	
New Troy	Berrien	137	5,000 00	880 00	50 00	30 00	1,175 78	
Niles	Berrien	1,275	50,000 00	7,994 99	83 55	33 56	14,084 27	
North Adams	Hillsdale	193	10,000 00	1,400 00	72 22	31 25	1,850 37	
North Branch	Lapeer	220	600 00	936 50	55 00	24 82	1,474 47	
North Muskegon	Muskegon	438	2,000 00	1,240 00	70 00	30 00	2,224 58	
Northport	Leelanaw	139	2,000 00	1,035 00	74 44	40 55	1,456 47	
Northville	Wayne	259	11,000 00	2,050 00	85 00	30 00	3,131 58	
Norway	Menominee	543	6,000 00	2,600 00	80 00	45 00	6,429 21	
Nunica	Ottawa	139	3,500 00	740 00	55 00	30 00	900 00	
Okemos	Ingham	136	3,000 00	595 00	36 79	20 00	687 32	
Olivet	Eaton	200	1,000 00	612 00	.....	34 00	831 22	
Onondaga	Ingham	114	500 00	612 00	50 00	18 00	695 73	
Ontonagon	Ontonagon	342	10,000 00	2,100 00	90 00	40 00	4,107 78	
Orange	Ionia	80	300 00	263 20	37 55	.....	328 72	
Orion	Oakland	201	4,000 00	730 00	45 00	28 00	833 40	
Ortonville	Oakland	122	3,000 00	765 00	52 50	24 00	1,210 01	98
Oscoda	Iosco	766	7,500 00	2,425 00	70 00	34 17	6,198 81	4,000 00
Osseo	Hillsdale	125	3,000 00	425 80	40 00	20 39	540 53	
Otisville	Genesee	198	4,000 00	884 00	45 00	21 70	1,241 60	
Otsego	Allegan	404	8,000 00	2,195 00	88 88	31 00	3,893 36	
Otter Lake	Lapeer	173	1,200 00	702 00	.....	41 29	1,022 67	350 00
Ovid	Clinton	471	20,000 00	2,972 00	91 67	28 37	7,231 61	3,000 00
Owosso	Shiawassee	1,113	50,000 00	6,080 00	64 67	34 50	10,663 36	12,000 00
Oxford	Oakland	308	2,500 00	1,768 00	70 00	26 70	2,185 47	
Palmyra	Lenawee	179	4,200 00	555 00	35 35	27 95	664 56	
Palo	Ionia	102	5,000 00	1,110 00	60 00	30 00	1,374 44	
Paris Tp., No. 1	Kent	164	1,300 00	665 00	50 00	23 89	884 13	
Parma	Jackson	235	14,000 00	1,736 00	65 85	29 33	4,492 63	4,000 00
Paw Paw	Van Buren	409	40,000 00	3,220 00	80 00	34 57	7,963 27	12,000 00
Pentwater	Oceana	428	8,000 00	2,500 00	100 00	37 50	3,901 20	
Pere Marquette Tp., No. 1	Mason	144	2,400 00	604 00	32 14	27 07	1,185 06	
Perry	Shiawassee	166	2,000 00	1,047 80	60 00	22 39	2,019 36	2,200 00
Petersburg	Monroe	203	10,000 00	842 50	45 00	25 74	1,128 70	
Petoskey	Emmet	761	10,000 00	3,129 50	90 00	31 85	6,486 14	3,500 00
Pewamo	Ionia	112	1,200 00	576 00	40 00	24 00	648 96	
Phœnix	Keweenaw	243	3,500 00	1,949 25	90 00	52 45	2,720 79	
Pierson	Montcalm	161	2,000 00	240 00	47 79	28 00	297 42	497 30
Pinckney	Livingston	195	800 00	810 40	60 00	30 00	895 37	
Pine Run	Genesee	117	1,000 00	501 00	45 00	16 00	790 93	
Pipestone	Berrien	87	1,000 00	328 00	40 00	18 67	465 43	
Pittsford	Hillsdale	116	1,800 00	598 00	44 44	22 00	789 88	
Plainwell	Allegan	477	14,000 00	2,582 00	88 88	28 74	3,278 98	428 76
Plymouth	Wayne	415	6,000 00	2,575 00	90 00	33 50	3,159 88	
Pokagon	Cass	75	600 00	441 00	.....	24 50	515 44	
Pontiac	Oakland	1,207	80,000 00	9,588 00	96 67	37 36	18,443 88	7,605 00
Port Austin	Huron	405	4,500 00	1,400 00	67 69	30 00	1,961 91	
Port Crescent	Huron	160	2,500 00	770 00	50 00	37 00	941 47	
Port Hope	Huron	280	2,500 00	725 00	50 00	26 25	1,036 46	
Port Huron	St. Clair	3,315	87,400 00	11,785 00	110 00	36 87	17,450 19	
Portland	Ionia	449	16,600 00	2,884 77	111 11	33 07	4,914 77	
Port Sanilac	Sanilac	223	1,000 00	855 00	70 00	25 00	898 19	

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Potterville	Eaton	188	$4,000 00	$257 75	$46 50	$36 98	$827 65	.....
Quincy	Branch	304	1,600 00	2,244 35	79 17	32 38	3,587 99	$2,000 00
Quincy Tp., No. 1	Houghton	564	.....	2,150 00	.....	53 75	2,995 02	.....
Reading	Hillsdale	287	8,000 00	1,500 00	.....	37 50	1,985 43	.....
Reed City	Osceola	516	12,000 00	2,120 00	80 00	30 00	3,591 12	2,000 00
Republic	Marquette	571	5,000 00	3,070 00	132 00	43 75	5,540 65	.....
Richland	Kalamazoo	110	1,500 00	1,260 00	60 00	33 00	2,110 99	.....
Richmond	Macomb	212	8,000 00	1,167 00	60 00	26 12	5,852 72	3,200 00
Riga	Lenawee	241	6,000 00	565 00	45 00	26 11	1,260 84	6,000 00
Riley Centre	St. Clair	116	1,000 00	368 90	45 00	23 50	454 21	.....
Rochester	Oakland	301	3,000 00	1,574 00	70 00	29 13	1,940 12	.....
Rockford	Kent	268	25,000 00	1,800 00	60 00	30 00	4,289 77	11,000 00
Rockland	Ontonagon	364	3,000 00	2,850 00	80 00	41 33	3,266 36	.....
Rogers City	Presque I'le	139	2,900 00	1,356 33	37 00	.....	1,661 25	5,000 00
Romeo	Macomb	511	2,500 00	3,950 00	150 00	35 00	5,297 85	.....
Roscommon	Roscommon	172	1,500 00	725 00	.....	42 65	1,093 55	925 00
Royal Oak	Oakland	177	3,200 00	435 00	.....	24 17	781 71	.....
Saginaw	Saginaw	4,203	110,000 00	16,260 64	104 37	37 30	30,137 61	.....
St. Charles	Saginaw	293	1,200 00	1,137 00	41 00	42 50	1,455 69	.....
St. Clair	St. Clair	775	22,000 00	4,160 00	100 00	31 60	7,788 40	7,298 00
St. Ignace	Mackinac	619	12,000 00	2,600 00	40 00	35 00	4,061 36	11,878 24
St. Johns	Clinton	736	15,000 00	4,904 00	100 00	32 53	8,761 81	3,096 00
St. Joseph	Berrien	1,036	41,300 00	4,578 00	57 32	34 92	11,826 54	24,000 00
St. Louis	Gratiot	807	12,000 00	217 00	100 00	29 12	227 60	9,000 00
Saline	Washtenaw	263	25,000 00	2,440 00	80 00	32 80	4,097 97	.....
Salt River	Isabella	152	2,000 00	511 00	43 12	20 75	303 52	.....
Sand Beach	Huron	420	3,800 00	1,556 00	70 00	32 92	2,345 35	1,016 50
Sand Lake	Kent	219	3,000 00	1,140 36	77 67	24 52	1,978 20	1,852 94
Sanilac Tp., No. 2	Sanilac	152	1,500 00	486 00	36 67	26 00	634 56	.....
Saranac	Ionia	264	12,500 00	1,425 00	58 20	30 67	1,824 02	.....
Saugatuck	Allegan	378	10,000 00	1,778 00	68 25	29 09	2,256 73	.....
Sault Ste. Marie	Chippewa	744	20,000 00	1,885 00	84 00	33 71	3,187 64	3,000 00
Schoolcraft	Kalamazoo	313	24,000 00	2,375 50	103 12	33 71	4,754 70	1,000 00
Sebewaing	Huron	355	4,000 00	638 00	50 00	23 00	1,331 12	.....
Shelby	Oceana	228	3,000 00	1,035 00	44 63	31 55	2,245 94	750 00
Sheridan	Montcalm	270	4,000 00	730 00	80 00	36 11	1,120 70	.....
Sherwood	Branch	177	3,000 00	712 75	44 19	33 89	1,023 62	.....
South Haven	Van Buren	412	5,000 00	2,159 20	90 00	17 48	3,075 68	.....
South Lyon	Oakland	154	3,900 00	999 00	60 00	19 95	2,523 68	2,300 00
Sparta Centre	Kent	204	4,000 00	1,250 00	60 00	32 50	1,471 88	.....
Spring Lake	Ottawa	820	10,000 00	3,645 81	.....	36 10	5,041 03	.....
Springport	Jackson	120	5,000 00	1,100 00	55 00	27 50	2,173 71	550 00
Springwells Tp., No. 1	Wayne	1,368	13,502 00	2,350 00	70 00	33 00	5,189 27	.....
Springwells Tp., No. 4	Wayne	2,194	6,000 00	2,063 75	47 50	25 47	2,906 78	.....
Stanton	Montcalm	628	6,000 00	3,392 00	.....	39 91	4,534 48	.....
Stoneville	Marquette	68	2,000 00	1,500 00	100 00	50 00	1,843 67	.....
Sturgis	St. Joseph	586	30,000 00	3,796 00	111 11	36 79	7,907 37	3,000 00
Sumner	Gratiot	120	4,000 00	385 00	30 62	29 17	453 87	2,500 00
Tawas City	Iosco	364	5,000 00	1,598 00	80 00	39 90	2,724 02	1,600 00
Tecumseh	Lenawee	535	36,000 00	4,430 00	100 00	32 67	5,966 18	.....
Tekonsha	Calhoun	164	10,000 00	870 00	50 00	28 00	4,912 50	6,010 00
Thornville	Lapeer	111	2,000 00	564 50	45 00	19 94	709 15	.....
Three Oaks	Berrien	262	5,900 00	1,655 00	88 89	31 67	2,049 12	.....
Three Rivers, No. 1	St. Joseph	537	15,000 00	3,905 50	115 50	27 50	5,902 62	.....
Three Rivers, No. 4	St. Joseph	321	5,000 00	1,520 00	80 00	24 00	1,876 69	.....
Traverse City	G'd Traverse	858	15,000 00	4,440 00	122 22	25 24	8,342 30	.....
Trenton	Wayne	420	3,000 00	950 00	40 00	27 50	2,316 95	.....
Tuscola	Tuscola	149	1,200 00	700 00	55 55	22 22	822 19	.....
Union City	Branch	513	20,000 00	4,020 00	150 00	31 90	8,312 49	12,323 55
Unionville	Tuscola	223	2,500 00	672 50	50 00	24 94	799 02	.....
Utica	Macomb	322	10,000 00	2,020 00	46 00	32 00	2,591 45	.....
Vandalia	Cass	145	10,000 00	1,231 00	70 00	26 84	2,377 51	.....
Vassar	Tuscola	512	10,000 00	.....	90 00	31 20	2,460 00	4,539 06
Vermontville	Eaton	218	10,000 00	1,106 50	50 00	28 30	1,381 68	.....
Vernon	Shiawassee	174	3,000 00	1,260 00	70 00	28 00	1,486 78	.....

TABLE XIV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Vicksburg	Kalamazoo	231	$6,000 00	$1,215 00	$60 00	$36 11	$1,572 18	.....
Vriesland	Ottawa	201	550 00	720 00	49 00	23 00	836 82	.....
Wacousta	Clinton	103	1,000 00	525 00	.....	29 17	675 00	.....
Waldron	Hilladale	117	2,000 00	403 75	50 00	22 64	1,078 94	$125 00
Washington	Macomb	110	1,500 00	520 00	40 00	22 22	638 23	.....
Watervleit	Berrien	129	2,200 00	675 00	45 00	30 00	830 39	.....
Watrousville	Tuscola	110	500 00	813 00	61 11	32 55	872 92	.....
Wayland	Allegan	178	6,000 00	1,014 00	61 11	18 56	2,423 75	18,000 00
Wayne	Wayne	437	20,000 00	2,175 00	80 00	27 50	4,673 43	15,550 00
Webberville	Ingham	225	2,500 00	900 00	50 00	25 00	1,148 37	.....
W. Bay City, No. 1	Bay	872	12,500 00	2,450 00	100 00	29 00	3,782 63	1,100 00
W. Bay City, No. 2	Bay	1,561	19,000 00	5,890 00	140 00	37 42	14,291 71	500 00
W. Bay City, No. 3	Bay	380	6,300 00	905 00	48 00	28 33	3,703 09	2,800 00
West Branch	Ogemaw	149	700 00	350 00	.....	35 00	418 19	.....
White Cloud	Newaygo	136	.....	677 00	50 00	17 70	1,009 08	.....
Whitehall	Muskegon	593	20,000 00	2,800 00	90 00	38 00	6,994 70	2,500 00
White Pigeon	St. Joseph	269	20,000 00	2,790 00	115 00	28 77	3,488 45	.....
Williamston	Ingham	385	15,000 00	1,794 00	65 00	32 69	3,638 03	15,000 00
Wilson Tp., No. 1	Alpena	190	2,000 00	1,262 50	40 18	35 00	2,449 92	.....
Woodland	Barry	109	300 00	328 00	35 00	23 50	378 68	.....
Wyandotte	Wayne	1,411	45,000 00	4,930 00	63 33	30 30	6,924 20	1,048 00
Ypsilanti	Washtenaw	1,493	55,000 00	10,800 00	77 50	36 18	15,489 08	2,000 00
Zeeland	Ottawa	415	5,000 00	1,270 00	60 00	22 33	2,419 98	1,535 00
Zilwaukee	Saginaw	466	6,000 00	1,875 00	55 55	30 17	2,657 64	.....

TABLE XV.

Financial Statistics of Two Hundred and Ninety-two Graded Schools, as reported by Superintendents and Principals, for the School Year 1882-3.

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Ada	$450 00	$252 00	.....	$702 00	$350 00	$1,052 00	$8 70	$4 00	$12 70
Addison	540 00	216 00	.....	756 00	130 00	886 00	13 75	2 07	15 82
Adrian	1,660 00	10,726 75	$1,344 37	13,731 12	5,077 17	18,808 29	12 95	4 78	17 73
Alaska	405 00	60 00	.....	465 00	166 42	631 42	4 50	1 65	6 15
Albion	1,100 00	3,709 00	.....	4,809 00	1,600 00	6,409 00	9 09	3 02	12 11
Algonac	630 00	720 00	.....	1,350 00	509 26	1,859 26	6 78	2 54	9 32
Allen	500 00	225 00	.....	725 00	300 00	1,025 00	13 00	6 00	19 00
Alma	420 00	750 00	.....	1,170 00	1,197 51	2,367 51	7 50	7 67	15 17
Almont	800 00	900 00	.....	1,700 00	.....	.....	8 25	.....	.....
Alpena	1,900 00	6,258 80	250 00	8,408 80	2,783 50	11,192 30	12 83	4 07	16 40
Ann Arbor	2,000 00	17,613 00	1,155 00	20,768 00	5,485 09	26,253 09	14 58	3 85	18 43
Armada	700 00	775 00	.....	1,475 00	324 49	1,799 49	11 99	2 66	14 65
Atlantic Mine	750 00	400 00	.....	1,150 00	668 21	1,818 21	9 12	5 30	14 42
Attica	450 00	270 00	.....	720 00	121 50	841 50	8 47	1 48	9 95
Augusta	481 25	743 25	.....	1,224 50	212 65	1,437 15	.....	.....	.....
Au Sable	700 00	800 00	.....	1,500 00	276 08	1,776 08	5 96	1 07	7 03
Baldwin	480 00	240 00	.....	720 00	.....	.....	6 04	.....	.....
Bancroft	500 00	340 00	.....	840 00	100 00	940 00	7 24	86	8 10
Bangor Tp., No. 2, fl.	700 00	1,008 00	.....	1,708 00	505 53	2,213 53	8 72	2 80	11 52
Bangor Tp., No. 3, fl.	360 00	210 00	.....	570 00	138 94	708 94	8 14	1 98	9 12

TABLE XV.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction	Cost per capita for Incidentals.	Total Cost per capita.
Bath	$300 00	$420 00	.....	$720 00	.....	.....	$6 79	.....	.....
Battle Creek	1,700 00	10,200 63	$875 00	12,775 63	$3,691 02	$16,466 65	11 35	$3 28	$14 63
Beacon	1,000 00	2,400 00	.....	3,400 00	1,804 77	5,204 77	10 96	5 82	16 78
Belding	700 00	600 00	.....	1,300 00	551 62	1,851 62	7 91	3 36	11 27
Belleville	624 00	400 00	.....	1,024 00	580 26	1,604 26	8 53	4 87	13 40
Bellevue	540 00	792 00	.....	1,332 00	350 00	1,682 00	6 60	1 75	8 35
Benton Harbor	800 00	3,163 75	.....	3,963 75	1,169 24	5,139 99	11 01	3 24	14 25
Berrien Springs	750 00	945 00	.....	1,695 00	506 97	2,201 97	8 73	2 62	11 35
Big Rapids	1,440 00	5,028 80	.....	6,468 80	1,364 20	7,833 00	10 17	2 14	12 31
Birmingham	600 00	1,380 00	.....	1,980 00	628 90	2,608 90	7 12	2 25	9 37
Blissfield, No. 1, fl	600 00	640 00	.....	1,240 00	300 00	1,540 00	8 61	2 08	10 69
Blissfield, No. 2, fl	480 00	524 00	.....	1,004 00	704 83	1,708 83	9 84	6 91	16 75
Breckenridge	270 00	225 00	.....	495 00	228 71	723 71	3 03	2 56	5 59
Breedsville	376 00	224 00	.....	600 00	84 83	684 83	9 67	1 37	11 04
Bridgeport	405 00	205 00	.....	610 00	99 80	709 80	6 56	1 07	7 63
Brighton	1,000 00	1,070 00	.....	2,070 00	650 00	2,720 00	11 67	3 75	15 42
Bronson	650 00	738 00	.....	1,388 00	272 00	1,660 00	6 12	1 19	7 31
Buchanan	900 00	2,247 50	.....	3,147 50	1,352 89	4,500 39	12 06	5 18	17 24
Burlington	360 00	359 00	.....	719 00	140 86	859 86	11 59	2 27	13 86
Burr Oak	630 00	900 00	.....	1,530 00	400 00	1,930 00	9 33	2 44	11 77
Byron	625 00	312 00	.....	937 00	75 00	1,012 00	10 07	80	10 87
Cadillac	1,000 00	2,342 50	.....	3,342 50	914 66	4,257 16	9 31	2 55	11 86
Caledonia	600 00	400 00	.....	1,000 00	100 00	1,100 00	8 62	86	9 48
Calumet	2,150 00	10,050 00	640 00	12,840 00	5,555 87	18,395 87	11 18	4 84	16 02
Calumet Tp., No. 2	1,000 00	809 21	.....	1,809 21	773 73	2,582 94	8 29	3 54	11 83
Cannonsburg	360 00	180 00	.....	540 00	50 00	590 00	4 72	40	5 12
Capac	500 00	550 00	.....	1,050 00	381 83	1,431 83	7 82	2 87	10 69
Carleton	520 00	258 00	.....	778 00	149 47	927 47	3 89	75	4 64
Caro	900 00	1,900 00	.....	2,800 00	625 00	3,425 00	8 80	1 96	10 76
Carrollton	550 00	550 00	.....	1,100 00	240 00	1,340 00	4 85	1 05	5 90
Carson City	700 00	768 00	.....	1,468 00	438 07	1,906 07	7 03	2 14	9 17
Cassopolis	875 00	1,469 00	.....	2,344 00	300 00	2,644 00	11 50	1 96	13 46
Cedar Springs	800 00	1,480 00	.....	2,280 00	.....	.....	10 80	.....	.....
Central Mine	1,000 00	625 00	.....	1,625 00	700 00	2,325 00	9 61	4 16	13 77
Ceresco	180 00	270 00	.....	450 00	82 00	532 00	.....	.....	.....
Charlotte	1,000 00	5,875 00	.....	6,875 00	415 75	7,290 75	11 25	61	11 86
Chelsea	800 00	1,577 50	.....	2,377 50	850 00	3,227 50	8 93	2 07	11 00
Chesaning	700 00	990 00	.....	1,690 00	.....	.....	8 28	.....	.....
Clayton	552 50	270 00	.....	822 50	122 00	944 50	10 15	1 50	11 65
Clinton	800 00	1,162 00	.....	1,962 00	540 27	2,502 27	11 21	3 09	14 30
Coldwater	1,400 00	7,746 20	400 00	9,546 20	2,527 20	12,073 40	13 09	3 48	16 57
Colon	600 00	560 00	.....	1,160 00	.....	.....	9 74	.....	.....
Commerce	300 00	87 50	.....	387 50	.....	.....	7 75	.....	.....
Concord	750 00	960 00	.....	1,710 00	620 92	2,330 92	9 55	3 47	13 02
Constantine	1,250 00	2,160 00	.....	3,410 00	650 00	4,060 00	11 11	2 12	13 23
Coopersville	405 00	260 00	.....	665 00	154 40	819 40	3 17	73	3 90
Covert	400 00	266 00	.....	666 00	170 48	836 48	6 46	1 65	8 11
Croswell	450 00	225 00	.....	675 00	119 77	794 77	4 75	84	5 59
Dansville	600 00	840 00	.....	1,440 00	384 93	1,824 93	12 00	3 20	15 20
Davisburgh	290 00	189 00	.....	479 00	138 29	617 29	6 84	1 97	8 81
Dearborn	600 00	270 00	.....	870 00	309 06	1,179 06	6 13	2 17	8 30
Decatur	850 00	1,754 00	.....	2,604 00	.....	.....	10 43	.....	.....
Detroit	3,974 77	167,410 20	6,159 25	177,544 22	76,608 68	254,152 90	13 24	5 99	19 23
Dexter	1,000 00	1,640 00	.....	2,640 00	555 33	3,195 33	.....	.....	.....
Dimondale	300 00	216 00	.....	516 00	99 37	615 37	5 16	99	6 15
Douglas	800 00	600 00	.....	1,400 00	264 87	1,664 87	10 44	1 90	12 34
Dowagiac	862 50	2,919 50	.....	3,682 00	1,238 00	4,920 00	11 31	3 80	15 11
Dryden	500 00	216 00	.....	716 00	70 00	786 00	6 12	52	6 64
East Saginaw	2,500 00	28,865 00	1,200 00	32,565 00	12,681 75	45,246 75	11 67	4 54	16 21
East Tawas	1,000 00	1,305 00	.....	2,305 00	525 96	2,830 96	9 69	2 21	11 90

TABLE XV.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Eaton Rapids	$800 00	$2,040 00	.....	$2,840 00	$739 00	$3,579 00	$8 15	$2 12	$10 27
Ecorse	337 00	193 50	.....	530 50	180 82	711 32	.....	.....	.....
Elk Rapids	800 00	2,150 00	.....	2,950 00	848 47	3,798 47	9 60	2 78	12 38
Elm Hall	450 00	252 00	.....	702 00	230 00	932 00	7 80	2 55	10 35
Elsie	450 00	504 00	.....	954 00	133 97	1,087 97	11 92	1 67	13 59
Erie	245 00	440 00	.....	685 00	109 15	794 15	.....	.....	.....
Escanaba	1,000 00	3,725 75	.....	4,725 75	2,856 85	7,582 60	7 81	4 39	12 20
Farmers	.....	295 00	.....	295 00	47 43	342 43	7 37	1 12	8 49
Farrington	475 00	400 00	.....	875 00	75 00	950 00	7 95	68	8 63
Farwell	550 00	585 00	.....	1,135 00	346 05	1,481 05	8 94	2 72	11 66
Fentonville	1,400 00	3,300 00	.....	4,700 00	450 00	5,150 00	7 83	75	8 58
Ferrysburg	540 00	450 00	.....	990 00	229 82	1,219 82	5 33	1 55	6 88
Fillmore Tp., No 1	289 62	420 87	.....	710 49	98 85	809 34	.....	.....	.....
Flat Rock	600 00	480 00	.....	1,080 00	183 91	1,263 91	8 33	1 41	9 74
Flint	1,300 00	13,496 25	$660 00	15,456 25	5,103 35	20,559 60	10 03	3 64	14 67
Fort Gratiot	725 00	1,750 00	.....	2,475 00	.....	.....	6 43	.....	.....
Fowler	450 00	250 00	.....	700 00	100 04	800 04	5 80	82	6 62
Frankfort	730 00	960 00	.....	1,690 00	475 00	2,165 00	8 89	2 51	11 40
Franklin Tp., No. 1	850 00	775 00	.....	1,625 00	811 27	2,436 27	8 88	4 43	13 31
Franklin Tp., No. 2	750 00	950 00	.....	1,700 00	513 34	2,213 34	13 18	3 97	17 15
Freeland	398 25	280 00	.....	678 25	100 00	778 25	9 97	1 28	11 25
Freeport	225 00	105 50	.....	330 50	48 00	378 50	3 83	56	4 39
Fremont	650 00	1,250 00	.....	1,900 00	625 00	2,525 00	5 15	1 69	6 84
Galesburg	700 00	960 00	.....	1,660 00	432 08	2,092 08	9 54	2 45	11 99
Galien	600 00	375 00	.....	975 00	160 00	1,135 00	6 82	1 12	7 94
Gaylord	450 00	446 50	.....	896 50	180 00	1,076 50	8 54	1 71	10 25
Girard	300 00	270 00	.....	570 00	142 69	712 69	6 47	1 51	7 98
Gobleville	500 00	180 00	.....	680 00	420 00	1,100 00	7 08	4 37	11 45
Goodrich	287 50	227 00	.....	514 50	43 31	557 81	.....	.....	.....
Graafschap	450 00	200 00	.....	650 00	78 00	728 00	4 58	55	5 13
Grand Haven	1,200 00	7,857 71	500 00	9,557 71	3,519 06	13,076 77	9 81	3 61	13 42
Grand Ledge	700 00	1,260 00	.....	1,960 00	491 45	2,451 45	7 90	1 57	9 47
Grand Rapids	2,250 00	61,852 63	3,000 00	67,102 63	22,962 24	90,064 87	13 75	4 71	18 46
G'd Rapids Tp., No. 1	700 00	590 00	.....	1,290 00	865 00	2,155 00	8 60	5 76	14 36
Greenland Tp., No. 1	750 00	300 00	.....	1,050 00	200 50	1,250 50	15 91	3 03	18 94
Greenland Tp., No. 2	750 00	350 00	.....	1,100 00	300 00	1,400 00	16 18	4 41	20 59
Greenland Tp., No. 3	750 00	250 00	.....	1,000 00	90 00	1,090 00	22 12	2 00	24 12
Greenville	1,500 00	4,979 00	250 00	6,729 00	2,634 48	9,363 48	11 34	4 44	15 78
Grosse Isle	500 00	500 00	.....	1,000 00	193 45	1,193 45	.....	.....	.....
Hamtramck Tp., No. 5	700 00	1,050 00	.....	1,750 00	514 11	2,264 11	.....	.....	.....
Hancock	1,400 00	4,108 00	275 00	5,783 00	1,740 07	7,523 07	14 00	4 23	18 23
Harrisville	800 00	750 00	.....	1,550 00	413 90	2,363 90	7 35	1 95	9 30
Hart	630 00	710 00	.....	1,340 00	324 67	1,664 67	8 17	1 98	10 15
Hartford	700 00	1,152 00	.....	1,852 00	598 00	2,450 00	9 26	2 99	12 25
Hartland	450 00	253 50	.....	703 50	72 54	775 04	10 82	1 11	11 93
Hastings	1,100 00	3,800 00	.....	4,900 00	2,292 47	7,192 47	7 92	3 61	11 53
Hersey	600 00	550 00	.....	1,150 00	352 70	1,502 70	9 91	3 04	12 95
Highland Station	400 00	240 00	.....	640 00	.....	.....	.....	.....	.....
Hillsdale	1,200 00	4,135 00	.....	5,335 00	2,745 34	8,080 34	7 62	3 92	11 54
Holland	700 00	3,100 00	60 00	3,860 00	2,163 84	6,023 84	6 28	3 52	9 80
Homer	800 00	1,200 00	.....	2,000 00	.....	.....	10 90	.....	.....
Horton	450 00	252 00	.....	702 00	100 00	802 00	14 31	2 02	16 33
Houghton	1,350 00	6,250 00	600 00	8,200 00	3,564 25	11,764 25	14 01	6 09	20 10
Howard City	800 00	700 00	.....	1,500 00	300 00	1,800 00	11 28	2 26	13 54
Howell	1,000 00	3,060 00	.....	4,060 00	1,976 74	6,036 74	10 57	5 40	15 97
Hubbardston	550 00	750 00	.....	1,300 00	275 00	1,575 00	.....	.....	.....
Hudson	1,000 00	2,280 00	.....	3,280 00	1,190 44	4,470 44	9 00	3 50	12 50
Imlay City	750 00	825 00	.....	1,575 00	332 87	1,907 82	6 90	1 46	8 36
Inverness Tp., No. 3	770 00	300 00	.....	1,070 00	221 70	1,291 70	9 55	1 90	11 45
Ionia	1,400 00	6,654 25	300 00	8,354 25	811 03	9,165 28	11 18	1 16	12 34

TABLE XV.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Ishpeming	$2,000 00	$6,698 00	.....	$8,698 00	$1,676 18	$10,374 18	$8 75	$1 68	$10 43
Ithaca	1,000 00	894 00	.....	1,894 00	260 88	2,154 88	7 20	99	8 19
Jackson, No. 17	1,200 00	6,787 40	.....	7,987 40	3,092 12	11,079 52	10 01	3 87	13 88
Jonesville	1,200 00	1,706 00	.....	2,906 00	1,667 39	4,573 39	15 42	8 83	24 25
Kalamazoo	1,800 00	18,662 75	$700 00	21,162 75	5,991 03	27,153 78	12 52	3 54	16 06
Kalkaska	550 00	904 75	.....	1,454 75	321 06	1,775 81	10 62	2 34	12 96
Laingsburg	450 00	660 00	.....	1,110 00	250 00	1,360 00	6 93	1 56	8 49
Lake Linden	1,200 00	5,800 00	700 00	7,700 00	3,084 34	10,784 34	17 50	5 00	22 50
Lakeside	570 00	1,021 25	.....	1,571 25	558 70	2,129 95	5 95	2 12	8 07
L'Anse	900 00	1,200 00	.....	2,100 00	1,077 26	3,177 26	7 74	3 97	11 71
Lapeer	1,000 00	4,250 00	.....	5,250 00	1,500 00	6,750 00	8 71	2 00	10 71
Lawrence	500 00	870 00	.....	1,370 00	235 00	1,605 00	6 61	1 13	7 74
Lawton	500 00	771 80	.....	1,271 80	516 22	1,788 02	8 47	3 44	11 91
Leland	425 00	240 00	.....	665 00	48 12	713 12	.....	.....	.....
Lowell	800 00	2,360 00	.....	3,360 00	1,674 54	5,034 54	9 30	4 65	13 95
Ludington	1,000 00	6,177 75	.....	7,177 75	1,885 19	9,062 94	9 54	2 50	12 04
Lyons	540 00	744 00	.....	1,284 00	200 00	1,484 00	10 40	1 60	12 00
Mancelona	455 00	455 00	.....	910 00	1,000 00	1,910 00	5 26	5 77	11 03
Manchester	1,000 00	2,090 00	.....	3,090 00	802 36	3,892 36	10 60	2 90	13 50
Manistee	1,500 00	10,702 50	750 00	12,952 50	7,009 62	19,962 12	13 96	7 55	21 51
Manistee Tp., No. 1	.....	750 00	.....	750 00	192 00	942 00	8 93	2 28	11 21
Manton	.....	680 00	.....	680 00	311 31	991 31	10 05	4 60	14 65
Marine City	500 00	1,270 00	.....	1,770 00	1,732 39	3,502 39	.....	.....	.....
Marlette	600 00	450 00	.....	1,050 00	694 19	1,744 19	5 61	3 71	9 32
Marquette	1,700 00	6,800 00	.....	8,500 00	2,100 00	10,600 00	9 92	2 47	12 39
Marshall	1,400 00	6,462 75	.....	7,862 75	3,630 21	11,499 96	12 36	5 70	18 06
Marysville	450 00	216 00	.....	666 00	75 72	741 72	8 32	94	9 26
Mason	1,000 00	2,420 00	.....	3,420 00	785 00	4,205 00	10 78	2 47	13 25
Mattawan	200 00	282 50	.....	482 50	166 07	648 57	.....	.....	.....
Mears	360 00	225 00	.....	585 00	117 10	702 10	6 29	1 47	7 76
Memphis	600 00	520 00	.....	1,120 00	343 85	1,463 85	6 71	1 75	8 46
Mendon	600 00	1,160 00	.....	1,760 00	812 23	2,572 23	9 21	4 25	13 46
Menominee	1,000 00	3,890 00	.....	4,890 00	1,215 16	6,105 16	10 70	2 66	13 36
Metamora	477 00	225 00	.....	702 00	80 44	782 44	6 95	79	7 74
Middleville	650 00	900 00	.....	1,550 00	569 10	2,119 10	7 00	2 53	9 53
Midland, No. 3	1,000 00	2,020 00	.....	3,020 00	2,467 49	5,487 49	9 77	7 99	17 76
Midland, No. 6	276 00	183 00	.....	459 00	270 42	729 42	5 27	3 11	8 38
Milford	800 00	1,355 00	.....	2,155 00	669 22	2,824 22	7 16	2 20	9 36
Millington	405 00	270 00	.....	675 00	126 31	801 31	4 09	76	4 85
Monroe	1,100 00	2,550 00	200 00	3,850 00	747 01	4,597 01	10 70	2 08	12 78
Montague	900 00	1,475 00	.....	2,375 00	717 50	3,092 50	11 10	3 35	14 45
Morenci	600 00	1,116 00	.....	1,716 00	600 00	2,316 00	6 78	2 37	9 15
Morley	450 00	315 00	.....	765 00	107 69	872 69	5 93	83	6 76
Moscow	425 00	125 00	.....	550 00	75 00	625 00	.....	.....	.....
Mount Clemens	1,200 00	2,360 00	.....	3,560 00	978 00	4,538 00	8 07	2 22	10 29
Mount Morris	415 00	206 00	.....	621 00	400 00	1,021 00	4 47	3 00	7 47
Muskegon	1,500 00	18,622 12	1,250 00	21,372 12	8,827 43	30,199 55	11 76	4 85	16 61
Napoleon	600 00	708 00	.....	1,308 00	285 27	1,593 27	.....	.....	.....
National Mine	1,000 00	900 00	.....	1,900 00	285 07	2,185 07	15 44	2 32	17 76
Nashville	540 00	720 00	.....	1,260 00	317 14	1,577 14	8 00	2 02	10 02
Negaunee	1,300 00	4,938 00	.....	6,238 00	5,326 57	11,564 57	9 99	8 53	18 52
Newaygo	900 00	1,040 00	.....	1,940 00	844 12	2,784 12	13 47	5 86	19 33
New Baltimore	600 00	453 00	.....	1,053 00	482 21	1,535 21	6 63	3 03	9 66
New Buffalo	520 00	560 00	.....	1,080 00	910 69	1,990 69	8 05	6 69	14 74
New Groningen	400 00	72 00	.....	472 00	.....	.....	.....	.....	.....
New Haven	450 00	468 00	.....	918 00	298 37	1,216 37	4 54	1 48	6 02
New Troy	.....	880 00	.....	880 00	160 78	1,040 78	7 52	1 37	8 89
Niles	1,273 00	6,721 99	.....	7,994 99	4,037 85	12,032 84	11 18	5 64	16 82
North Adams	650 00	750 00	.....	1,400 00	450 37	1,850 37	7 10	2 28	9 38
Northville	850 00	1,200 00	.....	2,050 00	407 41	2,457 41	9 33	1 83	11 16

TABLE XV.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per Capita.
Norway	$800 00	$1,800 00	.....	$2,600 00	$1,529 21	$4,129 21	$6 04	$3 55	$9 59
Nunica	440 00	300 00	.....	740 00	135 47	875 47	.....	.....	.....
Okemos	340 00	255 00	.....	595 00	96 96	691 96	4 95	80	5 75
Onondaga	450 00	180 00	.....	630 00	87 00	717 00	6 30	87	7 17
Ontonagon	900 00	1,200 00	.....	2,100 00	1,025 00	3,125 00	9 37	4 57	13 94
Ortonville	525 00	240 00	.....	765 00	112 00	877 00	6 95	1 01	7 96
Oscoda	800 00	1,625 00	.....	2,425 00	707 12	3,132 12	11 02	3 21	14 23
Osseo	257 40	175 00	.....	432 40	.....	.....	.....	.....	.....
Otisville	450 00	400 00	.....	850 00	200 00	1,050 00	7 58	1 70	9 29
Otsego	800 00	1,395 00	.....	2,195 00	.....	.....	5 52	.....	.....
Ovid	1,100 00	1,864 00	.....	2,964 00	.....	.....	7 95	.....	.....
Owosso	1,200 00	4,880 00	.....	6,080 00	1,629 16	7,709 16	10 34	3 97	14 31
Palmyra	.....	555 00	.....	555 00	109 00	664 00	2 60	50	3 10
Palo	600 00	510 00	.....	1,110 00	214 15	1,324 15	11 22	2 16	13 38
Paris Tp., No. 1	450 00	215 00	.....	665 00	199 03	864 03	14 75	4 42	19 17
Parma	800 00	936 00	.....	1,736 00	657 52	2,393 52	.....	.....	.....
Paw Paw	800 00	2,420 00	.....	3,220 00	1,147 87	4,367 87	10 30	1 40	11 70
Perry	600 00	447 80	.....	1,047 80	153 85	1,801 65	6 26	77	7 03
Petersburg	405 00	437 50	.....	842 50	315 35	1,157 85	6 96	2 60	9 56
Petoskey	900 00	2,229 50	.....	3,129 50	1,915 39	5,044 89	8 93	5 46	14 39
Phœnix	900 00	1,049 25	.....	1,949 25	645 13	2,595 38	12 16	4 02	16 18
Pinckney	540 00	270 00	.....	816 00	.....	.....	.....	.....	.....
Pine Run	405 00	120 00	.....	525 00	290 13	815 13	5 70	2 40	8 10
Pittsford	400 00	198 00	.....	598 00	87 80	685 80	7 25	68	7 93
Plainwell	800 00	1,772 00	.....	2,572 00	505 53	3,077 53	6 59	1 28	7 87
Plymouth	900 00	1,675 00	.....	2,575 00	400 00	2,975 00	6 98	1 13	8 11
Pokagon	239 00	202 00	.....	441 00	74 44	515 44	.....	.....	.....
Port Austin	800 00	600 00	.....	1,400 00	491 99	1,891 99	11 79	4 14	15 93
Port Hope	500 00	525 00	.....	1,025 00	671 46	1,696 46	8 47	5 55	14 02
Port Huron	1,500 00	9,829 00	.....	11,329 00	1,500 00	12,829 00	8 21	1 09	9 30
Portland	1,000 00	1,825 00	.....	2,825 00	550 00	3,375 00	8 23	1 66	9 89
Port Sanilac	630 00	225 00	.....	855 00	.....	.....	.....	.....	.....
Potterville	410 00	214 00	.....	624 00	150 00	774 00	4 80	1 15	5 95
Reading	600 00	900 00	.....	1,500 00	485 43	1,985 43	8 47	2 74	11 21
Republic	1,320 00	1,750 00	.....	3,070 00	2,470 65	5,540 65	9 84	7 91	17 75
Richmond	540 00	627 00	.....	1,167 00	262 22	1,429 22	.....	.....	.....
Riley Centre	180 00	188 00	.....	368 00	86 21	454 21	4 37	1 02	5 39
Rochester	700 00	890 00	.....	1,590 00	366 12	1,956 12	8 28	2 01	10 29
Rockford	800 00	1,000 00	.....	1,800 00	340 00	2,140 00	10 34	1 24	11 58
Rockland No. 1	1,000 00	1,850 00	.....	2,850 00	1,074 59	3,924 59	11 87	4 48	16 35
Romeo	1,500 00	2,450 00	.....	3,950 00	1,209 94	5,297 94	12 06	3 73	15 79
Roscommon	380 00	340 00	.....	720 00	312 55	1,032 55	15 63	3 32	18 95
Royal Oak	150 00	285 00	$45 00	480 00	.....	.....	.....	.....	.....
Saginaw	1,800 00	13,600 00	933 33	16,333 33	5,198 92	21,532 25	10 39	3 30	13 69
St. Clair	1,000 00	3,000 00	.....	4,000 00	.....	.....	9 85	.....	.....
St. Johns	1,000 00	4,320 00	.....	5,320 00	912 31	11,552 31	11 46	1 96	13 42
St. Joseph	750 00	3,828 00	.....	4,578 00	.....	.....	7 70	.....	.....
St. Louis	1,000 00	2,618 00	.....	3,618 00	800 00	4,418 00	9 82	1 75	11 57
Salt River	345 00	166 00	.....	511 00	184 00	695 00	4 64	1 67	6 31
Sand Beach	700 00	856 00	.....	1,556 00	789 35	2,345 35	8 79	4 46	13 25
Sanilac Tp. No. 2	240 00	156 00	.....	396 00	136 71	532 71	.....	.....	.....
Saranac	675 00	750 00	.....	1,425 00	290 65	1,715 65	4 18	89	5 07
Saugatuck	614 25	1,163 75	.....	1,777 00	478 73	2,255 73	8 34	2 24	10 58
Sherwood	397 75	315 00	.....	712 75	176 77	889 52	.....	.....	.....
South Haven	900 00	1,259 20	.....	2,159 20	816 48	2,975 68	6 79	2 57	9 36
Sparta Centre	600 00	650 00	.....	1,250 00	222 88	1,472 88	7 81	1 03	8 84
Spring Lake	666 00	2,990 00	.....	3,656 00	1,000 00	4,656 00	9 59	2 62	12 21
Springport	550 00	1,100 00	.....	1,650 00	115 00	1,765 00	10 10	1 06	11 16
Springwells Tp., No. 1	700 00	1,650 00	.....	2,350 00	.....	.....	5 22	.....	.....
Springwells Tp., No. 4	550 00	1,513 75	.....	2,063 75	843 03	2,906 78	4 53	1 86	6 39

TABLE XV.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Stanton	$800 00	$2,600 00	----	$3,400 00	$990 78	$4,390 78	$5 99	$1 47	$7 46
Stoneville	1,000 00	500 00	----	1,500 00	343 67	1,843 67	----	----	----
Sturgis	1,000 00	2,772 00	----	3,772 00	----	----	9 31	----	----
Tawas City	800 00	798 00	----	1,598 00	263 06	1,861 06	9 50	1 60	11 10
Tekonsha	450 00	420 00	----	870 00	359 75	1,229 75	----	----	----
Thornville	405 00	159 50	----	564 50	144 65	709 15	6 87	1 61	8 48
Three Oaks	720 00	640 00	----	1,360 00	484 73	1,844 73	9 70	3 67	13 37
Three Rivers, No. 1	1,155 00	2,750 50	----	3,905 50	506 95	4,412 45	12 20	1 60	13 80
Traverse City	1,400 00	3,450 00	----	4,850 00	800 00	5,650 00	----	----	----
Trenton	400 00	550 00	----	950 00	366 95	1,316 95	----	----	----
Tuscola	500 00	200 00	----	700 00	122 19	822 19	6 08	1 06	7 14
Union City	1,500 00	2,520 00	----	4,020 00	1,187 04	5,207 04	13 09	3 86	16 95
Unionville	450 00	222 50	----	672 50	101 41	773 91	3 48	52	4 01
Utica	740 00	1,280 00	----	2,020 00	521 45	2,541 45	10 46	2 70	13 16
Vandalia	560 00	671 50	----	1,231 50	235 88	1,467 38	7 92	1 28	9 20
Vermontville	400 00	705 00	----	1,105 00	----	----	5 01	----	----
Vernon	700 00	560 00	----	1,260 00	----	----	9 84	----	----
Vicksburg	540 00	675 00	----	1,215 00	339 93	1,554 92	5 00	1 40	6 40
Vriesland	490 00	230 00	----	720 00	74 50	794 57	----	----	----
Wacousta	----	525 00	----	525 00	148 19	673 19	----	----	----
Washington	320 00	200 00	----	520 00	85 98	605 98	10 40	1 71	12 11
Watervliet	405 00	270 00	----	675 00	155 36	830 36	6 75	1 55	8 30
Watrousville	550 00	270 00	----	820 00	80 00	900 00	9 00	1 00	10 00
Wayland	550 00	464 00	----	1,014 00	941 64	1,955 64	5 53	5 14	10 67
West Bay City, No. 1	1,000 00	1,450 00	----	2,450 00	770 00	3,220 00	4 42	1 39	5 81
West Bay City, No. 3	480 00	425 00	----	905 00	----	----	----	----	----
Whitehall	900 00	2,800 00	----	3,700 00	1,146 60	4,846 00	12 94	4 00	16 94
Williamston	750 00	1,044 00	----	1,794 00	364 03	2,158 03	7 12	1 44	8 56
Wyandotte	1,000 00	3,926 00	----	4,926 00	1,365 00	6,291 00	9 67	2 40	12 07
Ypsilanti	1,300 00	8,600 00	$900 00	10,800 00	3,506 16	14,306 16	13 25	4 30	17 55
Zeeland	600 00	670 00	----	1,270 00	500 13	1,770 13	5 22	2 05	7 27
Zilwaukee	750 00	1,125 00	----	1,875 00	782 64	2,657 64	5 65	2 36	8 01

TABLE XVI.

Miscellaneous Statistics of Two Hundred and Twenty-one Graded Schools, as reported by Superintendents and Principals, for the School Year 1882–3.

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Ada	110	80	64	1	1	....	40	.....	....	....	....	....	....	....	....
Addison	119	54	48	1	1	....	27	.....	....	....	....	....	....	....	....
Adrian	1,446	1,060	974	3	27	1	36	5-6	44	....	7	14	....	yes	yes
Albion	747	529	498	1	13	....	40	1-2	....	....	....	....	....	yes	yes
Algonac	259	219	163	1	3	....	55	1-20	....	....	....	....	yes	yes	yes
Allen	108	76	53	1	1	....	38	.....	....	....	....	....	....	....	....
Alma	203	156	139	1	3	....	39	.....	....	....	....	....	....	....	yes
Almont	265	206	177	1	3	....	51	1-10	....	....	....	....	....	....	....
Alpena	1,170	673	625	2	16	1	37	.....	13	....	....	....	yes	....	....
Ann Arbor	1,945	1,425	1,354	7	31	3	39	4-5	230	50	65	83	yes	yes	yes
Armada	174	128	123	1	3	....	32	.....	6	....	....	....	....	....	....
Atlantic Mine	183	126	97	1	1	....	63	.....	....	....	....	....	....	....	....
Attica	160	85	82	1	1	....	42	.....	....	....	....	....	....	....	....
Au Sable	258	184	157	1	2	....	61	.....	....	....	....	....	....	....	....
Baldwin	119	87	75	....	2	....	43	.....	....	....	....	....	....	....	....
Bancroft	125	116	89	1	1	....	58	.....	....	....	....	....	....	....	....
Bangor Tp., No. 2, fl	257	196	177	1	4	....	39	.....	....	....	....	....	yes	....	yes
Bangor Tp., No. 3, fl	81	70	62	1	1	....	35	.....	2	....	....	....	....	....	yes
Bath	126	106	90	1	2	....	35	.....	....	....	....	....	....	....	....
Battle Creek	1,630	1,125	1,056	4	25	1	38	1-2	43	1	9	30	yes	....	....
Beacon	472	310	230	1	4	....	62	1-10	....	....	....	....	....	....	....
Belding	221	164	132	1	2	....	55	1-10	6	....	....	....	....	....	....
Belleville	155	120	100	1	2	....	40	.....	....	....	....	....	....	yes	yes
Bellevue	215	200	175	1	3	....	50	.....	3	....	....	....	....	....	....
Benton Harbor	537	360	295	1	9	....	36	3-5	11	....	....	10	....	....	....
Berrien Springs	228	194	174	1	4	....	39	1-10	....	....	....	....	....	....	yes
Big Rapids	916	636	547	1	14	....	42	.....	17	....	....	6	....	....	....
Birmingham	278	255	236	1	5	....	42	1-5	10	....	....	6	....	yes	yes
Blissfield, No. 1, fl	211	144	117	1	3	....	38	.....	4	....	....	....	....	....	yes
Blissfield, No. 2, fl	166	120	102	1	2	....	40	.....	....	....	....	....	....	....	....
Breckenridge	113	89	57	1	1	....	44	.....	....	....	....	....	....	....	....
Breedsville	74	62	50	1	1	....	31	.....	....	....	....	....	....	....	....
Bridgeport	107	93	73	1	1	....	46	.....	....	....	....	....	....	....	....
Brighton	246	173	157	1	4	....	35	1-10	5	....	....	....	....	yes	yes
Bronson	229	160	147	1	3	....	40	1-10	....	....	....	....	....	....	....
Buchanan	515	261	246	1	8	....	29	1-5	7	....	....	6	....	....	....
Burlington	81	62	54	1	1	....	27	.....	....	....	....	....	....	....	....
Burr Oak	218	164	140	1	4	....	34	1-10	....	....	....	....	....	....	....
Byron	110	93	84	1	2	....	31	1-10	....	....	....	....	....	....	....
Cadillac	503	358	312	1	7	....	45	.....	....	....	....	....	....	....	....
Caledonia	151	116	95	2	1	....	39	.....	....	....	....	....	....	....	....
Calumet	1,702	1,148	900	5	16	1	55	3-5	1	....	23	12	yes	yes	yes
Calumet Tp., No. 2	221	218	140	1	3	....	54	1-20	....	....	....	....	....	yes	yes
Cannonsburg	95	80	60	1	1	....	40	.....	....	....	....	....	....	....	....
Capac	188	133	111	1	2	....	44	.....	....	....	....	....	....	....	yes
Carleton	173	146	81	1	1	....	73	.....	....	....	....	....	....	....	....
Caro	464	318	292	1	6	....	45	1-10	....	....	....	....	....	....	....
Carrollton	219	119	110	1	2	....	36	1-10	....	....	....	....	....	....	....
Carson City	.....	.....	.....	1	3	....	...	.....	....	....	....	....	....	....	....
Cassopolis	204	168	158	1	5	....	28	.....	5	1	....	7	yes	yes	yes
Cedar Springs	284	211	188	1	4	....	42	.....	2	....	....	....	....	....	....
Central Mine	211	169	135	1	2	....	56	.....	....	....	....	....	....	....	....
Charlotte	871	679	631	1	16	....	42	2-3	14	....	....	....	yes	yes	yes
Chelsea	317	266	245	1	6	....	38	1-12	....	....	....	....	....	....	....
Chesaning	287	205	199	1	4	....	41	.....	....	....	....	....	....	....	....

TABLE XVI.—*Continued.*

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying— Latin.	Greek.	French.	German.	Is Special Instruction given in— Vocal Music?	Drawing?	Penmanship?
Clayton	122	81	61	1	1	....	41	1-18	....	....	....	....	....	....	yes
Clinton	214	175	164	1	4	....	35	1-9	1	....	....	....	....	....	....
Coldwater	1,017	729	679	2	19	1	34	1-2	51	12	10	15	....	....	....
Colon	148	119	102	1	2	....	39	.....	....	....	....	....	....	....	....
Commerce	54	50	37	1	1	....	25	.....	....	....	....	....	....	....	....
Concord	214	179	120	1	3	....	45	.....	....	....	....	....	....	....	....
Constantine	384	297	252	2	6	....	37	1-5	40	....	....	38	....	....	....
Coopersville	277	210	174	1	3	....	52	.....	....	....	....	....	....	....	....
Covert	133	113	81	....	2	....	56	.....	....	....	....	....	....	....	....
Croswell	164	142	95	1	1	....	71	.....	....	....	....	....	....	....	....
Danville	162	120	98	1	2	....	40	1-5	4	....	....	....	....	....	....
Davisburgh	70	60	48	1	1	....	30	.....	....	....	....	....	....	....	....
Dearborn	173	142	123	1	1	....	71	.....	....	....	....	....	....	....	....
Decatur	363	249	226	1	6	....	36	1-10	14	....	....	9	....	....	....
Detroit	17,392	12,835	11,949	15	268	4	47	all	178	21	88	149	yes	yes	....
Dimondale	112	94	75	1	1	....	47	.....	....	....	....	....	....	....	....
Douglas	188	134	120	1	2	....	44	.....	....	....	....	....	....	....	....
Dowagiac	485	325	296	2	8	....	33	1-2	6	....	....	12	....	....	....
Dryden	117	96	85	1	1	....	48	.....	....	....	....	....	....	....	....
East Saginaw	3,477	2,791	2,646	6	59	3	44	all	63	13	....	841	yes	yes	yes
East Tawas	340	238	208	1	4	....	48	1-4	....	....	....	....	yes	....	yes
Eaton Rapids	533	348	310	1	7	....	44	1-4	5	....	....	15	....	....	....
Elk Rapids	305	280	170	1	6	....	40	1-6	....	....	....	....	....	....	yes
Elm Hall	130	90	.....	1	1	....	45	.....	....	....	....	....	yes	....	yes
Elsie	193	80	.....	1	1	....	40	.....	....	....	....	....	....	....	....
Escanaba	725	605	516	1	11	....	55	1-3	....	....	....	....	....	....	....
Farmers	74	40	33	1	1	....	20	.....	....	....	....	....	....	....	....
Farmington	147	110	104	1	2	....	36	.....	....	....	....	....	....	....	....
Farwell	165	127	87	1	1	....	63	.....	1	....	1	....	....	....	....
Fenton	628	600	573	2	9	....	55	2-5	42	19	4	15	....	....	....
Flat Rock	157	130	115	1	2	....	43	.....	....	....	....	....	....	....	yes
Flint	1,938	1,401	1,317	3	34	2	39	1-6	10	6	10	13	yes	....	yes
Fort Gratiot	445	385	320	1	5	....	55	.....	....	....	....	....	....	....	....
Fowler	112	90	63	1	1	....	45	.....	....	....	....	....	....	....	....
Frankfort	226	190	160	1	3	....	47	.....	....	....	....	....	....	....	....
Franklin Tp., No. 1	243	183	147	1	2	....	62	.....	....	....	....	....	....	....	....
Franklin Tp., No. 2	185	129	116	1	2	....	43	.....	....	....	....	....	yes	yes	yes
Freeland	99	68	59	1	1	....	34	.....	....	....	....	....	....	....	....
Freeport	94	86	71	1	1	....	43	.....	....	....	....	....	....	....	....
Fremont	369	208	184	1	4	....	42	.....	....	....	....	....	yes	....	yes
Galesburg	272	176	139	1	3	....	44	.....	2	1	....	....	....	....	....
Gaylord	163	105	82	1	2	....	35	1-15	....	....	....	....	....	....	....
Gobleville	140	96	71	1	2	....	32	1-20	....	....	....	....	....	....	....
Grand Haven	1,410	974	877	3	21	1	44	all	18	....	....	....	yes	....	....
Grand Ledge	358	248	207	1	5	....	41	1-20	....	....	....	....	....	....	....
Grand Rapids	7,232	4,878	4,544	7	126	3	37	all	135	12	50	58	yes	yes	yes
Grand Rapids Tp., No. 1	263	150	144	1	2	....	50	.....	....	....	....	....	....	....	....
Greenland Tp., No. 1	70	66	37	1	1	....	33	.....	2	....	....	....	....	....	....
Greenland Tp., No. 2	88	68	43	1	1	....	34	.....	1	....	....	....	....	....	....
Greenland Tp., No. 2, fl	63	45	39	1	1	....	23	.....	5	....	....	....	....	....	....
Greenville	778	593	549	1	14	1	41	3-7	10	2	10	....	yes	yes	....
Hancock	487	413	372	3	6	1	46	1-3	....	....	....	....	yes	....	....
Harrisville	253	212	118	1	2	....	71	.....	4	....	....	....	....	....	yes
Hart	198	164	154	1	3	....	41	.....	....	....	....	....	....	....	yes
Hartford	255	201	188	1	4	....	40	.....	....	....	....	....	....	....	....
Hartland	84	65	54	1	1	....	33	.....	....	....	....	....	....	....	yes
Hastings	800	635	605	1	12	....	51	1-4	32	....	....	8	yes	yes	yes
Hersey	135	116	90	1	2	....	39	.....	6	....	....	....	....	....	....
Hillsdale	786	700	650	2	11	....	54	2-5	18	....	....	....	....	....	....
Holland	813	615	526	1	11	1	56	1-2	....	....	....	....	yes	....	yes

TABLE XVI.—*Continued.*

Districts	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Homer	276	183	160	1	3	....	46	1-10	....	....	....	....	....	....	....
Houghton	798	585	533	2	11	1	45	1-2	....	....	....	....	yes	....	....
Howard City	246	133	114	1	2	....	44	.....	....	....	....	....	....	....	....
Howell	578	384	347	1	9	....	38	1-8	14	....	....	....	....	....	....
Hudson	496	334	274	2	6	....	39	1-3	1	....	....	10	....	....	yes
Imlay City	376	238	203	1	3	....	59	1-4	....	....	....	....	....	....	....
Inverness Tp., No. 3, fl	137	112	84	1	1	....	56	.....	....	....	....	....	....	....	....
Ionia	1,038	698	637	1	17	1	39	1-3	30	5	....	11	yes	....	....
Ishpeming	1,487	994	874	1	16	....	55	.....	4	....	....	....	....	yes	yes
Ithaca	412	263	231	2	3	....	53	.....	....	....	....	....	....	....	....
Jackson, No. 17	1,302	798	732	1	21	....	35	1-2	....	....	....	....	....	....	....
Jonesville	317	188	179	2	4	....	31	1-4	11	....	....	....	....	....	....
Kalamazoo	2,344	1,690	1,571	2	46	1	37	all	53	17	7	14	yes	....	....
Kalkaska	137	100	86	1	3	....	25	.....	....	....	....	....	....	....	....
Lake Linden	578	440	374	1	11	1	37	1-6	14	1	....	....	yes	yes	yes
L'Anse	225	209	144	1	3	....	52	1-20	....	....	....	....	....	....	....
Lapeer	722	503	481	2	13	....	34	1-3	35	8	12	15	....	....	....
Lawton	216	164	150	1	3	....	41	.....	3	....	....	....	....	....	....
Lowell	546	360	326	2	7	....	40	1-6	....	....	....	....	....	....	....
Ludington	1,072	752	631	2	14	....	49	1-3	8	....	....	9	....	....	....
Mancelona	201	173	109	1	2	....	57	.....	....	....	....	....	....	....	yes
Manchester	296	278	266	2	4	....	46	1-4	10	1	....	16	....	....	yes
Manistee	1,328	928	890	2	23	1	41	4-5	23	....	....	24	....	....	yes
Marlette	271	187	160	1	2	....	62	.....	....	....	....	....	....	....	....
Marquette	1,251	856	786	1	17	....	50	5-11	15	....	....	....	....	....	....
Marshall	858	636	590	1	19	....	30	7-11	15	....	2	8	....	....	....
Marysville	106	80	61	1	1	....	40	.....	....	....	....	....	....	....	....
Mason	446	317	306	1	8	....	35	3-8	21	....	....	15	....	....	....
Mears	128	93	70	1	1	....	46	.....	....	....	....	....	....	....	....
Memphis	234	196	140	1	2	....	65	.....	....	....	....	....	yes	....	yes
Mendon	252	191	169	1	4	....	38	.....	....	....	....	....	....	....	....
Menominee	708	457	409	2	9	....	41	1-5	12	....	3	4	....	....	....
Michigamme	309	291	187	1	2	....	97	.....	....	....	....	....	....	....	yes
Midland, No. 3	457	309	266	1	6	....	45	1-6	10	....	....	2	....	....	....
Midland, No. 6	100	87	46	1	1	....	44	.....	....	....	....	....	....	....	....
Milford	392	300	275	3	3	....	50	.....	....	....	....	....	....	....	....
Monroe	500	360	330	2	6	1	46	1-7	25	2	....	5	yes	....	....
Montague	388	215	206	1	4	....	43	.....	....	....	....	....	....	....	....
Morenci	347	253	226	1	5	....	42	.....	....	....	....	....	....	....	yes
Morley	142	129	100	1	1	....	64	.....	....	....	....	....	....	....	....
Mount Clemens	634	441	410	1	8	....	49	1-5	....	....	....	....	....	....	yes
Muskegon	2,656	1,819	1,705	3	44	2	39	all	....	....	....	....	yes	....	yes
National Mine	265	123	76	1	2	....	41	1-20	....	....	....	....	....	....	yes
Nashville	201	157	142	1	3	....	39	.....	2	....	....	....	....	....	....
Negaunee	624	428	313	1	12	....	33	1-2	....	....	....	....	....	....	....
Newaygo	289	144	117	2	2	....	36	1-10	....	....	....	....	....	....	....
New Baltimore	159	140	121	1	2	....	46	.....	....	....	....	....	yes	....	yes
New Haven	262	202	120	1	2	....	67	.....	1	....	....	....	....	....	yes
New Troy	117	74	70	1	1	....	37	.....	....	....	....	....	....	....	....
Niles	968	715	667	2	17	....	33	3-4	14	....	....	8	....	....	....
North Adams	197	168	160	1	3	....	42	.....	....	....	....	....	....	....	....
Northville	235	221	216	1	4	....	44	.....	8	....	....	4	....	....	....
Norway	470	430	295	1	4	....	86	1-4	....	....	....	....	....	....	....
Onondaga	104	90	52	1	1	....	45	.....	....	....	....	....	....	....	....
Oscoda	306	220	193	2	3	....	44	1-10	....	....	....	....	yes	yes	yes
Otisville	160	112	88	1	2	....	37	1-15	....	....	....	....	....	....	....
Otsego	449	398	280	1	5	....	66	1-6	....	....	....	....	....	....	yes
Ovid	539	373	292	1	7	....	46	1-5	....	....	....	....	....	....	yes
Owosso	819	588	526	3	12	....	39	2-5	31	....	....	10	....	....	....
Palo	104	99	76	1	2	....	33	.....	....	....	....	....	....	....	....

TABLE XVI.—*Continued.*

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Paw Paw	312	289	271	1	7	....	36	1-4	12	....	5	1	....	....	....
Perry	198	146	84	1	2	....	48	.....	....	....	....	....	....	....	yes
Petersburg	146	121	100	1	2	....	40	.....	....	....	....	....	....	....	yes
Petoskey	487	350	317	1	7	....	44	1-4	6	....	....	....	....	....	....
Phœnix	171	160	142	1	2	....	53	1-10	....	....	....	....	....	....	yes
Pine Run	105	94	72	1	1	....	47	.....	....	....	....	....	....	....	yes
Pittsford	127	86	72	1	1	....	43	.....	....	....	....	....	....	....	....
Plainwell	486	390	298	1	7	....	49	1-5	5	....	....	....	....	....	....
Plymouth	440	369	299	1	5	....	61	1-9	8	....	....	7	....	....	....
Port Austin	170	118	96	1	2	....	39	.....	....	....	....	....	....	....	....
Port Hope	161	121	92	1	2	....	40	.....	....	....	....	....	....	....	....
Port Huron	1,896	1,379	.....	1	26	....	42	all	11	....	14	6	....	....	....
Portland	500	331	277	1	6	....	48	.....	....	....	....	....	yes	....	....
Potterville	158	130	86	1	2	....	43	.....	....	....	....	....	....	....	....
Reading	237	178	173	1	3	....	44	.....	1	....	....	....	yes	....	yes
Republic	424	312	255	1	4	....	62	.....	....	....	....	....	....	....	....
Rochester	257	181	136	1	3	....	45	1-7	5	....	....	9	yes	....	yes
Rockford	254	166	144	2	2	....	41	1-10	7	....	....	....	....	....	yes
Rockland, No. 1	268	240	160	2	3	....	48	1-8	....	....	3	4	yes	....	yes
Romeo	434	324	304	1	7	....	40	1-5	35	4	5	23	....	....	....
Saginaw	2,176	1,572	1,467	4	31	2	46	all	25	2	6	486	yes	yes	....
St. Clair	532	406	352	1	11	....	34	1-5	7	....	3	1	....	....	....
St. Johns	632	464	419	1	12	....	37	1-3	15	....	1	9	yes	....	....
St. Joseph	629	580	476	3	10	....	56	1-2	10	....	....	17	....	....	....
St. Louis	540	450	410	1	9	....	45	3-5	....	....	....	....	....	....	....
Sand Beach	255	177	155	1	3	....	44	.....	....	....	....	....	yes	....	yes
Saranac	325	193	149	2	2	....	48	.....	....	....	....	....	....	....	....
Saugatuck	326	213	176	1	4	....	43	1-10	....	....	....	....	....	....	....
South Haven	404	318	261	1	5	....	53	1-12	....	....	....	....	....	....	....
Sparta Centre	216	160	116	1	2	....	53	.....	....	....	....	....	....	....	....
Spring Lake	392	381	309	....	9	....	42	3-4	....	....	....	....	....	....	....
Sturgis	506	405	358	1	8	....	45	1-2	11	....	....	....	yes	yes	yes
Tawas City	274	167	133	1	2	....	55	1-10	....	....	....	....	yes	yes	yes
Three Rivers, No. 1	542	370	287	1	9	....	37	.....	5	....	....	7	....	....	....
Union City	458	307	281	1	8	....	34	1-5	25	....	....	....	....	....	....
Utica	235	193	170	3	2	....	39	.....	4	....	....	8	....	....	yes
Vandalia	208	184	159	1	3	....	46	.....	9	....	....	....	....	....	....
Vernon	186	128	113	1	2	....	43	.....	3	....	....	....	....	....	....
Vicksburg	243	166	124	1	3	....	41	.....	....	....	....	....	....	....	....
Watervliet	119	100	73	1	1	....	50	.....	....	....	....	....	....	....	yes
Wayland	312	183	163	1	3	....	45	1-12	....	....	....	....	....	....	yes
Whitehall	422	286	267	1	5	....	48	1-5	....	....	....	10	yes	yes	yes
Williamston	252	231	205	1	5	....	39	1-6	....	....	....	....	....	....	....
Wyandotte	764	568	508	3	10	....	47	1-2	9	....	....	....	....	yes	....
Ypsilanti	1,116	815	746	5	17	1	37	1-2	....	....	....	....	yes	....	....
Zeeland	347	243	200	1	3	....	61	1-15	....	....	....	....	yes	....	yes

TABLE XVII.

Statistics of the High-School Department of Sixty Graded School Districts, Compiled from Reports of Superintendents and Principals, for the School Year 1882-3.

Districts.	Enrollment in Department.	Average Number belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Ave. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Graduated. Years.	Months.	Cost Per Capita for Instruction.	Cost Per Capita for Incidentals.	Total Cost Per Capita
Adrian	150	121	118	1⅔	3	26	21	18	----	$18 96	$4 78	$23 74
Alpena	38	26	24	1	½	17	------	19	----	49 82	4 07	53 89
Ann Arbor	515	350	335	6	4½	35	290	18	5	25 90	3 85	29 75
Battle Creek	216	113	111	4 1-6	1	22	66	18	1	25 65	3 28	28 93
Brighton	76	40	37	1	------	40	24	----	----	19 85	4 21	24 06
Buchanan	95	48	44	1	1	24	18	19	----	25 83	5 18	31 01
Burr Oak	31	20	18	1	------	20	9	17	6	28 73	2 44	31 17
Cadillac	44	30	26	1	------	30	------	16	----	20 00	2 55	22 55
Capac	55	30	27	1	------	30	20	16	8	16 66	2 87	19 53
Caro	105	65	62	9-10	1	34	30	18	----	18 43	1 96	20 39
Charlotte	146	98	91	------	3	33	53	17	3	17 41	61	18 02
Coldwater	126	76	73	1	2	25	------	19	----	------	------	------
Constantine	150	100	89	2	2	25	55	17	----	14 60	2 22	16 82
Detroit	759	548	535	7	15	25	7	18	6	30 54	5 99	36 53
Dowagiac	72	44	40	1	2	15	14	18	----	26 21	3 80	30 01
East Saginaw	219	180	173	2	3	36	4	17	6	25 11	4 54	29 65
East Tawas	56	26	23	1	------	26	------	17	2	32 60	4 57	37 17
Fenton	82	80	72	2	1	27	------	----	----	------	------	------
Flint	221	151	147	1	4	30	109	19	----	19 64	3 64	23 28
Frankfort	96	55	50	1	1	28	1	----	----	9 65	2 51	12 16
Grand Haven	36	29	26	------	2	15	2	18	----	41 00	3 61	44 61
Grand Ledge	115	70	68	1	1	35	------	----	----	10 00	1 57	11 57
Grand Rapids	556	384	366	3¾	9	31	52	18	3	26 29	4 71	31 00
Greenville	104	74	73	4-7	3	21	18	19	5	26 94	4 44	31 38
Hancock	43	35	30	------	1	35	10	17	6	17 15	7 14	24 29
Hastings	235	156	147	1	2	52	123	18	3	10 19	3 61	13 80
Hillsdale	141	125	103	2	1	42	40	18	----	13 76	3 82	17 58
Holland	46	29	26	½	1	22	4	----	----	14 65	3 52	18 17
Houghton	61	49	47	½	1 1-5	29	9	17	3	32 75	6 09	38 84
Ionia	160	92	85	½	3	28	------	----	----	21 55	1 16	22 71
Ithaca	84	58	41	1	------	58	60	19	6	10 14	1 49	11 63
Jackson, No. 17	33	25	23	------	1	25	-- ---	18	1	43 03	3 87	46 90
Kalamazoo	145	136	128	1	5	23	22	19	----	24 64	3 54	28 18
Lawton	56	35	30	1	------	35	20	18	----	14 28	3 44	17 72
Ludington	55	45	34	½	1	30	3	17	----	24 44	2 50	26 94
Manistee	65	47	46	½	2½	15	------	17	3	40 47	7 55	48 02
Marshall	126	75	67	½	3	22	58	19	----	27 41	5 70	33 11
Mason	87	60	57	1	1½	24	41	17	5	16 54	2 47	19 01
Monroe	49	40	38	1 6-7	3-7	18	8	----	----	38 75	2 08	40 83
Montague	67	37	34	1	------	37	------	----	----	24 32	3 35	27 67
Mount Clemens	53	39	37	1	½	26	8	17	6	20 31	2 22	22 53
Muskegon	56	44	43	1	2	15	7	----	----	46 48	4 85	51 33
Niles	108	87	83	2½	2	21	24	18	1	25 58	5 64	31 22
Owosso	73	50	48	1½	1	20	30	17	6	22 84	3 97	26 81
Paw Paw	90	64	47	3-5	1	40	24	19	----	9 10	1 40	10 50
Petoskey	99	56	51	1	1	28	9	----	----	18 08	5 46	23 54
Port Austin	47	33	28	1	------	33	4	16	4	23 73	4 14	27 87
Port Huron	84	70	66	1	1	35	5	18	----	18 00	1 09	19 09
Rochester	57	34	31	1	1	17	12	----	----	22 30	2 01	24 31
Romeo	77	60	57	1	2	20	50	17	6	25 00	3 73	28 73
Saginaw	123	101	95	1	2½	30	5	18	6	20 93	3 30	24 23
St. Johns	63	50	40	1	1	25	15	19	----	22 22	1 96	24 18
St. Louis	60	40	35	1	½	27	11	----	----	13 75	1 75	15 50
Saugatuck	47	29	24	1	------	29	1	----	----	18 78	2 24	21 02
Sparta Centre	74	55	42	1	------	55	20	18	----	10 91	1 03	11 94
Sturgis	61	53	49	½	1	35	18	18	----	20 75	2 59	23 34
Union City	108	73	66	1	2	24	33	17	----	27 49	3 86	31 35
Whitehall	53	35	32	1	------	35	7	17	----	22 28	4 01	26 29
Wyandotte	51	41	38	1½	------	27	5	17	----	25 40	2 40	27 80
Ypsilanti	121	98	94	3	2	20	23	----	----	29 08	4 30	33 38

TABLE XVIII.

Statistics of the Grammar Department of Sixty Graded School Districts, Compiled from Reports of Superintendents and Principals for the School Year 1882-3.

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Promot'd		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
								Years.	Months.			
Adrian	477	370	344	5-12	11	34	13	14	....	$13 52	$4 78	$18 30
Alpena	286	194	182	.....	5 1-2	35	.....	14	3	13 91	4 07	17 98
Ann Arbor	519	408	378	1	11 1-2	36	46	14	....	12 95	3 85	16 80
Battle Creek	484	372	353	.....	9	41	51	14	6	10 44	3 28	13 72
Brighton	100	55	50	.....	2	28	2	12	8	11 23	4 35	15 58
Buchanan	200	103	97	.....	3	34	8	11	....	9 63	5 18	14 81
Burr Oak	75	50	45	.....	2	25	10	14	....	9 38	2 44	11 82
Cadillac	151	117	115	.....	2	59	.....	12	4	8 50	2 55	11 05
Capac	57	45	36	.....	1	45	.....	....	....	6 66	2 87	9 53
Caro	114	94	86	.....	2	47	.....	13	....	7 21	1 96	9 17
Charlotte	282	230	218	.....	5	46	30	14	8	10 41	61	11 02
Coldwater	366	259	246	.....	8	32	.....	15	....	.....	.....	.....
Constantine	115	84	73	.....	2	42	5	....	....	10 86	2 22	13 08
Detroit	4,871	3,580	3,366	5	102 1-5	35	46	15	2	17 00	5 99	22 99
Dowagiac	152	110	99	1	2	37	4	13	4	10 32	3 80	14 12
East Saginaw	958	833	791	2	19	40	5	13	2	13 90	4 54	18 44
East Tawas	75	35	31	.....	1	35	.....	14	1	12 08	3 00	15 08
Fenton	245	230	221	.....	4	57	.....	....	....	.....	.....	.....
Flint	753	562	532	1	13	40	45	14	5	10 82	3 64	14 46
Frankfort	98	65	55	.....	1	65	.....	....	....	8 76	2 51	11 27
Grand Haven	252	173	156	1 2-5	4	35	6	14	....	13 30	3 61	16 91
Grand Ledge	82	62	50	.....	2	31	.....	....	....	8 85	1 57	10 42
Grand Rapids	1,912	1,475	1,373	2 1-4	38 2-5	39	32	14	...	14 66	4 71	19 37
Greenville	235	192	181	.....	5	38	2	13	9	10 25	4 44	14 69
Hancock	94	77	71	1	1	39	8	14	4	17 53	7 14	24 67
Hastings	259	205	197	.....	4	51	14	14	....	7 14	3 61	10 75
Hillsdale	277	245	232	.....	4 2-3	52	4	14	....	7 54	3 92	11 46
Holland	380	208	186	.....	5	42	4	13	....	8 31	3 52	11 83
Houghton	99	63	59	.....	2	31	9	15	5	22 38	6 09	28 47
Ionia	199	160	148	1-3	5	32	.....	....	....	13 18	1 16	14 34
Ithaca	164	113	104	2	.....	56	3	15	2	6 23	77	7 00
Jackson, No. 17	330	184	170	.....	8	23	.....	14	9	17 09	3 87	20 96
Kalamazoo	684	482	449	1-3	14	34	11	15	10	11 99	3 54	15 53
Lawton	65	45	40	.....	1 1-3	34	1	15	....	6 71	3 44	10 15
Ludington	172	139	112	1-2	3 1-2	40	3	14	....	11 15	2 50	13 65
Manistee	355	233	223	2-3	6 2-5	39	3	15	4	14 00	7 55	21 55
Marshall	283	218	198	.....	7	28	20	14	4	12 25	5 70	17 95
Mason	113	92	89	.....	2	46	8	14	....	8 61	2 47	11 08
Monroe	185	133	126	.....	2 4-7	52	18	....	....	7 00	2 08	9 08
Montague	72	45	39	.....	1	45	.....	....	....	9 09	3 35	12 44
Mount Clemens	192	125	117	.....	2 1-2	50	2	14	1	8 45	2 22	10 67
Muskegon	559	364	350	.....	9	40	18	....	....	12 53	4 85	17 38
Niles	197	138	125	1-6	4	34	3	13	10	11 00	5 64	16 64
Owosso	297	212	195	1	4	42	10	14	2	8 83	3 97	12 80
Paw Paw	102	81	70	.....	3	27	4	13	1	5 26	1 40	6 66
Petoskey	130	84	75	.....	2	42	3	....	....	9 25	5 46	14 71
Port Austin	54	42	36	.....	1	42	6	12	6	7 14	4 14	11 28
Port Huron	336	203	.....	.....	6	34	14	14	....	12 10	1 09	13 19
Rochester	82	52	39	.....	1	52	3	....	....	8 65	2 01	10 66
Romeo	134	104	101	.....	3	34	3	14	1	9 13	3 73	12 86
Saginaw	495	379	348	1	8 1-2	40	12	15	....	11 89	3 30	15 19
St. Johns	204	154	141	.....	4	44	22	14	...	6 17	1 96	8 13
St. Louis	165	110	100	.....	2 1-2	44	7	15	6	8 50	1 75	10 25
Saugatuck	104	53	43	.....	1 1-2	35	.....	15	....	10 77	2 24	13 01
Sparta Centre	70	52	39	.....	1	52	.....	14	....	6 36	1 03	7 39
Sturgis	223	182	167	1-4	4	40	22	14	....	9 39	2 59	11 98
Union City	157	105	96	.....	3	35	14	15	....	10 01	3 86	13 87
Whitehall	109	74	68	.....	2	37	1	14	4	10 27	4 01	14 28
Wyandotte	156	113	106	1	2	37	2	13	....	11 18	2 40	13 58
Ypsilanti	315	235	216	.....	5	47	9	....	....	13 29	4 30	17 59

TABLE XIX.

Statistics of the Primary Department in Sixty Graded School Districts, Compiled from reports of Superintendent and Principals for the School Year 1882–3.

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	Number of Non-resident Pupils.	Average age of Class Promoted.		Cost Per Capita for Instruction.	Cost Per Capita for Incidentals.	Total Cost Per Capita.
								Years.	Months.			
Adrian	1,004	569	512	.....	13	44	3	10	....	$9 21	$4 78	$13 99
Alpena	1,032	453	419	.....	10	45	.....	11	4	9 61	4 07	13 68
Ann Arbor	1,028	667	641	.....	15	46	64	10	8	8 12	3 85	11 97
Battle Creek	1,185	639	591	.....	15	43	9	9	8	9 35	3 28	12 63
Brighton	129	78	70	.....	2	39	.....	9	8	7 73	3 05	10 78
Buchanan	240	110	105	.....	4	28	.....	....	....	9 44	5 18	14 62
Cadillac	352	211	168	.....	5	42	.....	9	6	9 20	2 55	11 75
Capac	76	58	48	.....	1	58	.....	9	....	4 31	2 87	7 18
Caro	277	159	143	.....	3	53	.....	11	....	5 46	1 96	7 42
Charlotte	507	351	322	.....	8	44	7	10	1	9 04	61	9 65
Coldwater	535	394	360	.....	9	44	.....	11	....	.....	.....	.....
Constantine	176	113	90	.....	2	56	.....	....	....	9 14	2 22	11 36
Detroit	12,551	8,707	8,048	1	148	58	18	11	6	10 61	5 99	16 60
Dowagiac	309	171	157	.....	4	43	3	10	7	8 11	3 80	11 91
East Saginaw	2,467	1,778	1,682	.....	37	48	7	10	....	9 82	4 54	14 36
East Tawas	306	177	154	.....	3	59	.....	11	9	6 40	1 72	8 12
Fenton	301	292	280	.....	4	73	.....	....	....	.....	.....	.....
Flint	1,191	688	638	.....	17	40	3	10	8	9 27	3 64	12 91
Frankfort	88	70	55	.....	1	70	.....	....	....	8 41	2 51	10 92
Grand Haven	1,519	772	695	1 1-2	15	52	9	12	....	7 86	3 61	11 47
Grand Ledge	161	117	83	.....	2	58	18	....	....	4 61	1 57	6 18
Grand Rapids	5,867	3,019	2,805	1 1-2	78 3-5	39	41	10	4	11 64	4 71	16 35
Greenville	480	327	295	.....	6	55	1	9	5	7 33	4 44	11 77
Hancock	384	301	271	1	4	60	10	12	2	8 67	7 14	15 81
Hastings	339	274	261	.....	6	46	6	10	6	6 84	3 61	10 45
Hillsdale	382	330	315	.....	5 1-3	62	1	10	....	5 35	3 92	9 27
Holland	601	378	314	.....	5	76	.....	9	7	4 45	3 52	7 97
Houghton	638	473	427	1 2-5	8	51	2	9	3	10 99	6 09	17 08
Ionia	912	446	404	1-3	9	49	.....	....	....	8 81	1 16	9 97
Ithaca	181	92	86	.....	2	46	.....	10	6	3 30	95	4 25
Jackson, No. 17	1,124	589	537	.....	12	45	.....	10	6	7 02	3 87	10 89
Kalamazoo	1,827	1,072	994	1-3	27	39	4	11	5	10 80	3 54	14 34
Lawton	95	70	65	.....	1 1-3	38	.....	9	....	6 71	3 44	10 15
Ludington	914	568	485	.....	9 1-2	60	.....	10	....	7 09	2 50	9 59
Manistee	1,156	648	621	2-3	13 1-3	48	4	11	5	10 82	7 55	18 37
Marshall	534	343	325	.....	9	38	10	11	6	9 07	5 70	14 77
Mason	260	165	160	.....	4 1-2	37	2	11	....	8 71	2 47	11 18
Monroe	276	187	166	1 10	3	62	6	....	....	5 40	2 08	7 48
Montague	266	133	100	.....	3	44	.....	....	....	8 08	3 35	11 43
Mount Clemens	470	276	254	.....	5	55	1	10	8	6 16	2 22	8 38
Muskegon	2,824	1,384	1,297	.....	32	40	10	....	....	10 42	4 85	15 27
Niles	757	490	457	.....	11	45	.....	10	11	8 87	5 64	14 51
Owosso	499	326	283	.....	7	35	.....	11	2	9 40	3 97	13 37
Paw Paw	159	124	114	.....	2	62	.....	9	8	4 90	1 40	6 30
Petoskey	373	210	192	.....	4	52	1	....	....	6 57	5 46	12 03
Port Austin	69	43	32	.....	1	43	.....	9	2	6 98	4 14	11 12
Port Huron	1,600	1,106	.....	.....	19	58	2	10	....	6 04	1 09	7 13
Rochester	118	95	66	.....	2	48	1	....	....	4 00	2 01	6 01
Romeo	223	160	152	.....	4	38	.....	....	....	6 56	3 73	10 29
Saginaw	1,701	1,092	1,024	1	20	52	2	11	....	8 91	3 30	12 21
St. Johns	409	260	238	.....	7	38	.....	11	....	6 26	1 96	8 22
St. Louis	375	300	275	.....	6	50	1	11	6	7 10	1 75	8 85
Saugatuck	185	1,131	109	.....	2 1-2	52	.....	10	....	5 72	2 24	7 96
Sparta Centre	72	53	35	.....	1	53	.....	10	....	5 66	1 03	6 69
Sturgis	222	170	142	1-4	3	56	13	10	....	7 83	2 59	10 42
Union City	193	129	119	.....	3	43	5	9	....	8 08	3 86	11 94
Whitehall	284	177	167	.....	3	59	3	11	1	6 55	4 01	10 56
Wyandotte	588	414	364	.....	8	51	.....	9	....	6 55	2 40	8 95
Ypsilanti	680	482	436	2	10	40	6	....	....	10 01	4 30	14 31

TABLE XX.

Receipts and Expenditures at Teachers' Institutes for the Calendar Year 1883.

State and Counties.	Locations.	Dates.	Receipts.		Expenditures.			
			County Fund.	State Fund.	Compensation of Instructors.	Exp'nses of Instruct'rs.	Other Exp'nses	Total.
Totals			$6,345 15	$1,800 00	$4,538 53	$1,746 51	$1,860 11	$8,145 15
State	Lansing	July 10-July 13	.....	$329 90	.....	$147 52	$182 38	$329 90
Alcona	Harrisville	Oct. 15-Oct. 19	$30 50	60 00	$63 00	23 55	3 95	90 50
Allegan	Allegan	Aug. 27-Aug. 31	129 45	.....	78 00	14 95	36 50	129 45
Alpena	Alpena	Sept. 3-Sept. 7	46 00	50 00	62 20	16 85	16 95	96 00
Antrim	Mancelona	Sept. 10-Sept. 14	44 00	45 00	51 20	24 50	13 30	89 00
Barry	Hastings	Aug. 27-Aug. 31	131 90	.....	90 00	12 10	29 80	131 90
Bay	Bay City	April 2-April 6	62 00	60 00	70 85	38 15	13 00	122 00
Benzie	Frankfort	Sept. 10-Sept. 14	25 50	60 00	53 40	15 00	17 10	85 50
Berrien	Bent'n Harbor	Aug. 13-Aug. 17	157 50	.....	90 00	33 15	34 35	157 50
Branch	Bronson	Aug. 13-Aug. 17	141 15	.....	62 15	45 25	33 75	141 15
Calhoun	Battle Creek	Mar. 26-Mar. 30	158 36	.....	90 00	10 00	58 36	158 36
Cass	Cassopolis	Aug. 6-Aug. 17	108 50	35 10	92 17	26 90	24 53	143 60
Charlevoix	Charlevoix	Aug. 6-Aug. 10	54 50	30 00	43 55	28 15	12 80	84 50
Cheboygan	Cheboygan	Aug. 13-Aug. 17	34 50	50 00	36 00	42 30	6 20	84 50
Clare	Harrison	July 30-Aug. 3	25 00	60 00	55 85	18 45	10 70	85 00
Clinton	Ovid	Aug. 20-Aug. 24	125 60	.....	64 35	35 55	25 70	125 60
Delta	Escanaba	Oct. 22-Oct. 26	49 00	60 00	66 40	26 00	16 60	109 00
Eaton	Charlotte	Aug. 20-Aug. 24	168 95	.....	90 00	31 40	47 55	168 95
Emmet	Harbor Sp'gs	Aug. 20-Aug. 24	44 00	40 00	27 00	42 90	14 10	84 00
Genesee	Fentonville	Aug. 13-Aug. 17	161 60	.....	87 65	30 15	43 80	161 60
G'd Traverse	Traverse City	Aug. 27-Aug. 31	48 50	40 00	32 27	43 00	13 23	88 50
Gratiot	Ithaca	Aug. 27-Aug. 31	100 00	.....	51 85	22 75	25 40	100 00
Hillsdale	Hillsdale	Aug. 27-Aug. 31	297 76	.....	200 00	19 00	78 76	297 76
Houghton, Keewenaw,	Calumet	Aug. 27-Aug. 31	93 50 / 15 00	.....	68 85	15 35	24 30	108 50
Huron	Bad Axe	Aug. 27-Aug. 31	59 50	35 00	37 31	34 25	22 94	94 50
Ingham	Dansville	Mar. 26-Mar. 30	148 33	.....	100 00	17 10	31 23	148 33
Ionia	Ionia	Oct. 29-Nov. 2	151 90	.....	90 00	15 10	46 80	151 90
Iosco	East Tawas	Aug. 20-Aug. 24	16 00	60 00	54 00	6 95	15 05	76 00
Isabella	Mt. Pleasant	Aug. 20-Aug 24	55 00	25 00	40 85	21 15	18 00	80 00
Jackson	Grass Lake	Aug. 27-Aug. 31	151 62	.....	100 00	14 72	36 90	151 62
Kalamazoo	Schoolcraft	Sept. 10-Sept. 14	166 50	.....	90 00	28 00	48 50	166 50
Kalkaska	Kalkaska	Aug. 20-Aug. 24	26 00	55 00	37 80	30 65	12 55	81 00
Kent	Rockford	April 2-April 6	154 94	.....	90 00	24 65	40 29	154 94
Lake	Chase	Sept. 17-Sept. 21	27 00	60 00	45 00	28 70	13 30	87 00
Lapeer	Imlay City	April 2-April 6	132 50	.....	74 06	22 65	35 79	132 50
Leelanaw	Leland	Aug. 13-Aug. 17	38 00	45 00	41 05	29 15	12 80	83 00
Lenawee	Tecumseh	Aug. 6-Aug. 17	275 00	.....	180 00	29 05	65 95	275 00
Livingston	Howell	Aug. 27-Aug. 31	155 35	.....	90 00	33 35	32 00	155 35
Macomb	Mt. Clemens	Aug. 20-Aug. 24	106 00	.....	70 75	16 25	19 00	106 00
Manistee	Bear Lake	April 30-May 4	32 50	60 00	46 35	30 20	15 95	92 50
Marquette	Marquette	Aug. 27-Aug. 31	108 50	.....	58 82	22 65	27 03	108 50
Mason	Ludington	Aug. 27-Aug. 31	49 50	50 00	53 15	31 90	14 45	99 50
Mecosta	Big Rapids	Aug. 27-Aug. 31	63 00	35 00	48 91	26 89	22 20	98 00
Menominee	Menominee	Aug. 27-Aug. 31	29 50	60 00	33 44	43 86	12 20	89 50
Midland	Midland	Aug. 27-Aug. 31	36 00	60 00	51 30	26 95	17 75	96 00
Monroe	Monroe	Aug. 27-Aug. 31	121 50	.....	75 33	22 80	23 37	121 50
Montcalm	Stanton	Aug. 27-Aug. 31	114 50	.....	75 60	13 30	25 60	114 50
Muskegon	N. Muskegon	July 16-July 20	52 50	50 00	69 35	18 40	14 75	102 50
Newaygo	Fremont	Oct. 15-Oct. 19	72 50	50 00	88 13	23 70	10 67	122 50
Oakland	Pontiac	Aug. 20-Aug. 24	182 54	.....	90 00	39 95	52 59	182 54
Oceana	Shelby	Oct. 15-Oct. 19	78 00	25 00	47 75	36 70	18 55	103 00
Ontonagon	Ontonagon	Aug. 20-Aug. 24	8 00	60 00	34 58	22 97	10 45	68 00
Osceola	Evart	Oct. 8-Oct. 12	45 00	30 00	45 00	11 00	19 00	75 00
Ottawa	Holland	April 2-April 6	141 50	.....	90 00	21 00	30 50	141 50
Presque Isle	Rogers City	Oct. 1-Oct. 5	18 50	60 00	48 00	25 40	5 10	78 50
Saginaw	Chesaning	Aug. 20-Aug. 24	154 00	.....	87 60	32 25	34 15	154 00
St. Clair	Marine City	Aug. 27-Aug. 31	117 00	.....	90 00	12 00	15 00	117 00
St. Joseph	Sturgis	Aug. 20-Aug. 24	145 50	.....	90 00	22 80	32 70	145 50
Sanilac	Marlette	April 2-April 6	109 90	.....	60 52	21 75	27 63	109 90
Shiawassee	Vernon	Oct. 8-Oct. 12	143 00	.....	90 00	20 20	32 80	143 00
Tuscola	Caro	Aug. 27-Aug. 31	120 50	.....	77 80	16 20	26 50	120 50
VanBuren	Lawrence	Aug. 27-Aug. 31	147 00	.....	90 00	16 45	40 55	147 00
Washtenaw	Saline	Aug. 27-Aug. 31	174 30	.....	110 00	18 55	45 75	174 30
Wayne	Wyandotte	Aug. 6-Aug. 10	125 00	.....	65 34	24 00	35 66	125 00
Wexford	Cadillac	April 2-April 6	39 00	60 00	54 00	30 00	15 00	99 00

TABLE XXI.

Local Committees, Conductors, and Assistant Instructors, at Teachers' Institutes for the Calendar Year 1883.

Counties.	Local Committees.	Conductors.	Assistant Instructors.
Alcona	J. E. Fair	H. A. Ford	E. L. Little.
Allegan	I. W. McKeever	Daniel Putnam	H. C. Rankin, I. W. McKeever.
Alpena	E. L. Little	N. H. Walbridge	J. W. Smith.
Antrim	W. R. Grant	P. A. Latta	D. E. Haskins.
Barry	C. B. Hall	Z. C. Spencer	C. B. Hall.
Bay	I. W. Morley	E. P. Church	J. W. Ewing, M. T. Gass.
Benzie	Mrs. Rose Woodward	N. H. Walbridge	A. L. Gridley.
Berrien	J. C. Lawrence	J. Estabrook	W. S. Perry.
Branch	W. H. Wieand	O. D. Thompson	Austin George.
Calhoun	F. P. Jordan	W. H. Payne	Z. C. Spencer.
Cass	D. B. Ferris, Chairm'n	R. W. Putnam	J. W. Simmons, M. Pemberton.
Charlevoix	E. H. Green	J. W. Ewing	J. S. Crombie.
Cheboygan	E. D. Sutherland	E. B. Fairfield, Jr.	F. A. Barbour.
Clare	W. H. Browne	H. R. Pattengill	J. S. Crombie.
Clinton	S. W. Baker	I. N. Demmon	David Howell.
Delta	W. H. Tibbals	D. E. Haskins	W. H. Tibbals.
Eaton	Miss M. L. Jones	W. S. Perry	J. Estabrook.
Emmet	F. L. Powell	E. B. Fairfield, Jr.	F. A. Barbour.
Genesee	Clarence Tinker	Z. C. Spencer	J. G. Plowman.
G'd Traverse	Mrs. S. G. Burkhead	David Howell	E. C. Thompson.
Gratiot	L. J. Marvin	Austin George	D. E. Haskins.
Hillsdale	C. G. Robertson	W. H. Payne	W. A. Drake, C. G. Robertson.
Houghton, Keweenaw	W. J. Cox	Chas. Kelsey	W. J. Cox, E. T. Curtis.
Huron	G. A. Maywood	Wesley Sears	H. F. Derr.
Ingham	W. Weeks	J. Estabrook	H. C. Rankin, Samuel Dickie.
Ionia	Chester Davison	J. W. Ewing	W. H. Payne, Chas. Carlisle.
Iosco	A. M. Webster	I. M. Wellington	E. P. Church.
Isabella	Free Estee	P. A. Latta	H. K. Warren.
Jackson	Eugene Miller	O. F. R. Bellows	Eugene Miller, D. C. Pierce.
Kalamazoo	T. H. Clayton	J. Estabrook	W. H. Payne.
Kalkaska	W. E. Martin	S. G. Burkhead	J. W. Humphrey.
Kent	J. N. Mead	W. H. Payne	G. P. Glenn.
Lake	Henry Amick	D. E. Haskins	P. A. Latta.
Lapeer	C. H. May	Lewis McLouth	I. N. Demmon.
Leelanaw	E. S. Jones	J. S. Crombie	J. W. Ewing.
Lenawee	D. A. Hammond	I. N. Demmon	A. E. Curtis, D. A. Hammond.
Livingston	Geo. Barnes	J. Estabrook	M. T. Gass, Clark Stanton.
Macomb	Wesley Sears	M. T. Gass	Austin George.
Manistee	Mrs. E. S. Hopkins	P. A. Latta	N. H. Walbridge.
Marquette	Chas. Kelsey	I. N. Demmon	John Northmore.
Mason	G. H. Blodgett	S. G. Burkhead	C. W. Pickell.
Mecosta	G. R. Malone	J. R. Miller	J. W. Simmons.
Menominee	A. W. Bill	N. H. Walbridge	A. W. Bill.
Midland	T. W. Crissey	E. P. Church	J. G. Plowman.
Monroe	J. A. Stewart	H. R. Pattengill	A. E. Curtis.
Montcalm	F. A. Lyon, Chairman	J. W. Ewing	Geo. Barnes.
Muskegon	Mrs. Geo. Arms, Ch'm'n	H. R. Pattengill	E. P. Church.
Newaygo	F. E. Burkhead	W. H. Payne	F. E. Burkhead, John Harwood.
Oakland	E. R. Webster	Lewis McLouth	C. B. Thomas.
Oceana	F. W. Van Wickle	D. E. Haskins	N. H. Walbridge.
Ontonagon	J. S. Monroe	Chas. Kelsey	W. J. Cox.
Osceola	Jas. A. Smith	C. F. R. Bellows	Jas. A. Smith.
Ottawa	Geo. P. Hummer	E. B. Fairfield, Jr.	J. S. Crombie.
Presque Isle	Paul Cornwin	P. A. Latta	
Saginaw	R. C. Sellman	R. W. Putnam	J. G. Plowman.
St. Clair	Frank McElroy	O. D. Thompson	R. W. Putnam.
St. Joseph	Sheridan Osbon	Daniel Putnam	Z. C. Spencer.
Sanilac	C. L. Messer	H. R. Pattengill	John Goodison.
Shiawassee	E. M. Hopkins	N. H. Walbridge	Lewis McLouth.
Tuscola	G. F. Getty	Lewis McLouth	W. D. Clizbe.
Van Buren	A. E. Jennings	J. S. Crombie	G. P. Glenn.
Washtenaw	C. H. Cole	C. B. Thomas	A. E. Haynes, Mrs. K. B. Ford.
Wayne	C. O. Hoyt	I. M. Wellington	M. T. Gass.
Wexford	H. M. Enos	P. A. Latta	N. H. Walbridge.

TABLE XXII.

Enrollment at Teachers' Institutes for the Calendar Year 1883.

State and Counties.	Whole number of Teachers required to supply the Schools.	Number Enrolled.			Kinds and Grades of Certificates held by Members.						No. without experience in Teaching.	No. having rece'd Normal School Instruction.	Average Attendance each half-day.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	Special.			
Totals.....65	8,853	1,501	4,257	5,758	43	99	312	487	3,374	148	1,261	1,495	60.7
State.....	.....	65	43	108	17	15	37	12	19	.....	8	51	95
Alcona.....	21	6	13	19	.....	1	2	3	8	2	3	3	15
Allegan.....	224	35	119	154	.....	2	9	19	98	8	21	34	104.7
Alpena.....	49	7	53	60	.....	.....	7	13	32	1	17	22	52.8
Antrim.....	70	11	34	45	.....	.....	3	.....	23	1	18	4	31.4
Barry.....	167	25	95	120	.....	.....	3	14	52	1	25	50	85
Bay.....	125	6	78	84	.....	.....	16	12	29	1	24	21	35
Benzie.....	40	9	27	36	.....	.....	1	3	19	4	9	8	26.4
Berrien.....	214	33	110	143	.....	1	6	13	95	4	20	42	105.5
Branch.....	169	31	86	117	1	1	5	19	61	.....	30	22	76
Calhoun.....	237	39	117	156	.....	1	3	14	97	3	38	34	101
Cass.....	141	22	78	100	.....	.....	1	3	80	3	19	43	70
Charlevoix.....	64	14	46	60	3	.....	3	6	26	5	9	15	40
Cheboygan.....	47	9	24	33	.....	.....	5	1	22	.....	5	8	23
Clare.....	37	6	21	27	.....	.....	3	.....	9	1	14	1	14
Clinton.....	158	19	79	98	1	.....	3	17	56	4	17	70	74.4
Delta.....	33	5	43	48	.....	.....	1	2	24	7	14	19	43
Eaton.....	184	26	86	112	.....	2	5	8	74	1	19	40	67.5
Emmet.....	65	17	40	57	.....	2	7	4	28	4	7	9	32.3
Genesee.....	226	28	58	86	.....	1	7	6	59	2	9	30	54
Grand Traverse	67	11	47	58	1	1	.....	11	33	1	5	40	36.5
Gratiot.....	138	34	61	95	.....	3	3	7	65	4	12	16	72.7
Hillsdale.....	205	49	153	202	.....	1	4	22	132	8	35	46	117
Houghton / Keweenaw	97	21	55	76	1	7	6	7	40	.....	19	25	39
Huron.....	105	17	40	57	.....	2	5	5	35	1	9	20	40.3
Ingham.....	181	58	104	162	.....	1	2	7	87	.....	65	22	116.6
Ionia.....	164	58	142	200	2	2	6	4	139	2	61	75	124
Iosco.....	34	8	23	31	2	2	3	6	4	.....	14	6	20
Isabella.....	102	10	30	40	.....	.....	.....	2	27	5	6	2	31.1
Jackson.....	235	25	108	133	.....	3	1	9	78	2	38	24	94
Kalamazoo.....	208	19	61	80	1	1	3	2	49	3	21	14	62.6
Kalkaska.....	49	11	33	44	.....	.....	1	3	20	3	13	8	28.3
Kent.....	382	17	54	71	.....	1	6	7	49	.....	8	11	38
Lake.....	53	15	39	54	.....	.....	4	3	36	1	11	15	38
Lapeer.....	163	20	53	73	.....	1	4	6	52	.....	15	20	54.3
Leelanaw.....	52	16	18	34	.....	.....	1	2	14	.....	17	6	18.5
Lenawee.....	267	28	146	174	1	1	3	9	124	1	38	40	97
Livingston.....	152	44	114	158	.....	2	.....	5	93	13	22	25	116.1
Macomb.....	145	30	94	124	2	2	4	13	79	1	25	18	90
Manistee.....	74	6	34	40	.....	.....	.....	2	24	1	13	5	39
Marquette.....	99	6	58	64	2	2	13	8	29	2	9	13	51
Mason.....	66	15	43	58	1	1	7	13	28	.....	9	16	38.7
Mecosta.....	103	12	41	53	.....	.....	.....	8	39	.....	6	23	44
Menominee.....	47	2	28	30	.....	.....	.....	7	17	1	5	14	27.8
Midland.....	61	4	44	48	.....	.....	.....	3	25	2	15	3	38.2
Monroe.....	156	35	90	125	.....	1	12	10	88	1	13	33	85
Montcalm.....	170	11	49	60	1	1	3	2	47	4	4	11	41.6
Muskegon.....	151	13	38	51	.....	1	12	7	25	1	5	17	36
Newaygo.....	102	19	82	101	2	.....	6	4	52	4	33	16	71
Oakland.....	273	62	139	201	.....	7	8	10	140	4	43	74	137.9
Oceana.....	96	37	59	96	.....	3	5	6	52	6	20	21	57
Ontonagon.....	21	4	18	22	.....	.....	2	2	10	.....	8	3	14
Osceola.....	92	11	43	54	.....	1	2	3	30	.....	20	14	40.8
Ottawa.....	177	43	83	126	1	2	3	22	63	2	35	14	85
Presque Isle...	24	18	7	25	.....	.....	1	3	5	2	10	2	14
Saginaw.....	260	19	67	86	.....	.....	.....	1	65	.....	22	37	76
St. Clair.....	207	18	63	81	1	.....	6	6	59	1	8	10	54
St. Joseph.....	169	41	138	179	.....	4	7	20	115	5	29	38	137
Sanilac.....	139	25	41	66	.....	1	3	3	26	.....	33	8	49
Shiawassee.....	148	40	62	102	.....	3	3	4	61	.....	31	40	65.5
Tuscola.....	150	42	83	125	1	2	3	9	80	7	23	44	101.2
Van Buren.....	196	50	128	178	.....	1	9	20	85	1	66	27	95
Washtenaw.....	248	30	70	100	1	4	4	3	75	.....	11	23	67
Wayne.....	480	22	82	104	1	7	15	7	50	5	16	22	60
Wexford.....	74	12	42	54	.....	2	4	5	17	2	24	8	43

TABLE XXIII.

General Statistics of State and Incorporated Institutions, Compiled from the Reports of Officers for the Academic Year 1882–3.

Name of Institution.	Location.	Date of Charter or Organization.	Religious Denomination.	Name of Principal, President, or Superintendent.	Number of Instructors.	No. of Students (or Inmates) during Year.	No. of Graduates last Commencement.	Whole No. of Graduates since Founded	No. of Volumes in Library.	No. of Volumes Added to Library during Year.
State:										
University of Michigan	Ann Arbor	1841	Non-sectarian	James B. Angell	85	1,440	450	7,482	54,000	.....
State Agricultural College	Lansing	1855	Non-sectarian	T. C. Abbot	12	184	30	302	6,429	294
State Normal School	Ypsilanti	1852	Non-sectarian	Edwin Willits	14	574	100	1,115	4,284	593
Institution for the Deaf and Dumb	Flint	1854	Non-sectarian	M. T. Gass	15	250	7	.....	1,562	.....
School for the Blind	Lansing	1880	Non sectarian	J. F. McElroy	7	68	.....	9	925	.....
State Reform School	Lansing	1856	Non-sectarian	C. A. Gower	8	553	.....	.....	2,000	200
Michigan Industrial Home for Girls	Adrian	1881	Non-sectarian	Miss Emma A Hall	5	141	.....	.....	293	114
Public School for Dependent Children	Coldwater	1874	Non-sectarian	John N. Foster	7	444	.....	.....	1,300	200
Incorporated:										
Adrian College	Adrian	1859	Methodist Protestant	D. S Stephens	13	184	22	.....	3,000	.....
Albion College	Albion	1861	Methodist Episcopal	L. R. Fiske	12	260	13	.....	3,500	112
Battle Creek College	Battle Creek	1874	Seventh Day Adventist	[a]	[a]	[a]	[a]	[a]	[a]	[a]
Detroit College	Detroit	1881	Roman Catholic	James G. Walshe	10	186	7	7	450	25
Grand Traverse College	Benzonia	1863	Congregational	N. P. Willard	8	59	.....	.....	300	.....
Hillsdale College	Hillsdale	1855	Free-Will Baptist	D. W. C. Durgin	19	867	25	500	7,200	200
Hope College	Holland	1866	Reformed Church in America	Charles Scott	10	122	8	106	5,925	365
Kalamazoo College	Kalamazoo	1855	Baptist	Kendall Brooks	4	159	9	112	3,231	51
Olivet College	Olivet	1859	Congregational and Presbyterian	H. Q. Butterfield	14	350	12	171	11,000	1,884
Michigan Female Seminary	Kalamazoo	1856	Presbyterian	Miss M. H. Sprague	7	54	7	87	1,253	253
Michigan Military Academy	Orchard Lake	1877	Non-sectarian	J. Sumner Rogers	7	138	13	46	600	100
Monroe Young Ladies' Seminary	Monroe	1850	Non-sectarian	C. N. Mattoon	6	53	.....	141	500	.....
Raisin Valley Seminary	Adrian	1863	Friends	W. W. White	4	88	12	57	200	5
Somerville School	St. Clair	1880	Non-sectarian	Edward A. Berry	12	78	14	14	.....	.....
Spring Arbor Seminary	Spring Arbor	1874	Free Methodist	Clark Jones	4	130	9	18	61	61

[a] No report received for 1882-3.

TABLE XXIV.

Financial Statistics of State and Incorporated Educational Institutions, Compiled from the Reports of Officers for the Academic Year 1882–3.

Institutions.	Annual Cost of Tuition per Student	Av. Cost of Board per Week.	Total Av. Annual Cost p'r Student (to the Stud'nt)	Total Av. Annual Cost p'r Student (to the State.)	Estimated Value of Grounds, Buildings, Apparatus, etc.	Amount of Productive Funds.	Income from Productive Funds.	Amount of Legislative Appropriation for Year 1883.	Receipts from Tuition Fees during Year.	Receipts from all Other Sources.	Current Expenses for the Year.	Expenses for Permanent Improvements.	Liabilities.
State:													
University of Michigan	.....	[c] $3 50	.....	$42 70	$825,000 00	$544,151 66	$38,724 60	$37,200 00	$66,687 40	$40,500 00	$216,605 66	$46,741 38	.....
State Agricultural College	.....	2 50	$120 00	[a]	340,000 00	410,843 09	22,139 13	32,178 00	[a]	13,525 40	46,100 32	10,701 62	.....
State Normal School	$10 00	[c] 3 00	150 00	37 57	140,000 00	69,126 04	4,268 30	30,815 00	2,487 50	537 20	28,856 71	7,030 20	.....
Institution for the Deaf and Dumb	31 82	.....	.....	150 09	437,122 62	.....	.....	45,000 00	400 00	4,650 97	42,762 00	464 00	.....
School for the Blind	.....	.....	.....	305 63	119,262 39	.....	.....	68,150 00	.....	1,074 94	20,782 73	14,222 52	.....
State Reform School	.....	.....	.....	118 45	223,341 59	.....	.....	45,000 00	.....	10,739 12	53,027 85	22,426 02	.....
Michigan Industrial Home for Girls	.....	67	.....	122 40	113,117 86	.....	.....	65,856 61	.....	327 82	15,554 33	10,154 22	.....
Public School for Dependent Children	.....	.....	.....	114 72	162,947 80	.....	.....	.....	.....	.....	36,597 05	12,000 00	.....
Incorporated:													
Adrian College	28 00	2 00	.....	.....	128,000 00	80,000 00	5,000 00	.....	5,000 00	1,100 00	11,000 00	.....	$23,000 00
Albion College	Free.	2 50	.....	.....	75,000 00	170,000 00	10,500 00	.....	6,250 00	.....	17,000 00	600 00	12,000 00
Battle Creek College	[a]	[a]	.....	.....	[a]	[a]	[a]	.....	[a]	[a]	[a]	[a]	[a] .....
Detroit College	40 00	.....	.....	.....	60,000 00	.....	.....	.....	5,406 50	.....	4,500 00	580 00	20,000 00
Grand Traverse College	15 00	2 00	.....	.....	10,000 00	10,000 00	750 00	.....	300 00	250 00	1,100 00	50 00	1,000 00
Hillsdale College	10 50	2 00	.....	.....	100,000 00	133,000 00	10,833 74	.....	3,895 32	151 62	14,997 07	152 68	.....
Hope College	15 00	2 50	.....	.....	45,000 00	75,673 14	3,291 62	.....	1,169 25	4,203 50	8,664 44	400 00	1,000 00
Kalamazoo College	18 00	3 00	.....	.....	100,000 00	55,257 11	4,599 14	.....	2,603 47	996 10	8,357 08	.....	11,907 83
Olivet College	21 00	2 50	.....	.....	125,000 00	127,886 00	8,801 88	.....	4,113 49	6,286 13	19,201 50	20,617 41	6,471 71
Michigan Female Seminary	175 00	4 30	.....	.....	51,000 00	.....	.....	.....	9,044 80	.....	.....	1,100 46	.....
Michigan Military Academy	[a] 350 00	.....	.....	.....	55,000 00	.....	.....	.....	[a]	.....	[a]	.....	.....
Monroe Young Ladies' Seminary	40 00	5 00	.....	.....	10,000 00	.....	.....	.....	2,670 00	.....	2,670 00	.....	.....
Raisin Valley Seminary	20 00	2 00	.....	.....	5,000 00	23,000 00	1,500 00	.....	477 33	233 62	2,517 79	.....	.....
Somerville School	[b] 350 00	.....	.....	.....	50,000 00	.....	.....	.....	[a]	.....	[a]	26,000 00	.....
Spring Arbor Seminary	18 00	2 25	.....	.....	12,000 00	.....	.....	.....	1,175 00	.....	[a]	7,000 00	2,000 00

[a] Not reported.
[b] Including board.
[c] Including room.

TABLE XXV.

Members of County Boards of School Examiners for the Year 1883-4.

Counties.	Names.	Occupations.	Postoffice Addresses.	Years when Terms Expire.
Alcona	D. McGregor, chairman	Merchant	Harrisville	1884
	J. E Fair, secretary	County Treas.	Harrisville	1886
	C. P Reynolds		Harrisville	1885
Allegan	J. W. Humphrey, chairman	Teacher	Wayland	1885
	P. A. Latta, secretary	Lawyer	Allegan	1884
	J. F. Taylor	Clergyman	Douglas	1886
Alpena	A. R. McDonald, chairman	Lawyer	Alpena	1884
	E. L. Little, secretary	Clergyman	Alpena	1885
	F. S. Dewey	Merchant	Alpena	1886
Antrim	——— ———, chairman			
	S. W. Skeels, secretary	Teacher	Alba	1884
	J. M. Belden	Clergyman	Elk Rapids	1885
Arenac	T. S. Joslin, chairman	Farmer	Sterling	1884
	Jas. J. Decker, secretary	Clerk	Standish	1885
	A. L. Wilkins	Farmer	Omer	1886
Baraga	O. J. Foote, chairman	Farmer	L'Anse	1885
	E. L. Mason, secretary	Banker	L'Anse	1884
	Thos. McGillan	County Treas.	Baraga	1886
Barry	T. B. Diamond, chairman	Teacher	Bellevue	1884
	Enoch Andrus, secretary	Farmer	Irving	1886
	C. B. Hall	Teacher	Hastings	1885
Bay	S. R. Hoobler, chairman	Teacher	Pinconning	1885
	M. R. Hartwell, secretary	Teacher	Pinconning	1884
	J. H. Sharpe	Teacher	Essexville	1886
Benzie	Mrs. Rose Woodward, chairman	Housekeeper	Frankfort	1884
	Albert L. Gridley, secretary	Clergyman	Benzonia	1886
	D. N. Holden	Farmer	Oviatt	1885
Berrien	J. C. Lawrence, chairman	Teacher	Benton Harbor	1885
	C. B. Groat, secretary	Teacher	Niles	1884
	H. C Crosby	Teacher	New Buffalo	1886
Branch	Herbert J. Cook, chairman	Clergyman	Coldwater	1885
	Milo D. Campbell, secretary	Lawyer	Quincy	1884
	Geo. N. Carman	Teacher	Union City	1886
Calhoun	Arletta R. Camburn, chairman	Teacher	Albion	1885
	Ephraim Marble, secretary	Farmer	Marshall	1884
	Henry H. Hubbard	Agent	Battle Creek	1886
Cass	Chas. A. Mosher, chairman	Teacher	Cassopolis	1885
	D. B. Ferris, secretary	Teacher	Cassopolis	1884
	M. Pemberton	Teacher	Vandalia	1886
Charlevoix	John Redpath, chairman	Clergyman	Boyne Falls	1885
	William Harris, secretary	Farmer	Norwood	1884
	Rosco S. Corbett	Lawyer	Boyne City	1886
Cheboygan	A. M. Gerow, chairman	Physician	Cheboygan	1884
	Frank Shepherd, secretary	Lawyer	Cheboygan	1886
	David J. Galbraith	Teacher	Cheboygan	1885
Chippewa	E. S. B. Sutton, chairman	Lawyer	Sault Ste. Marie	1884
	Gustave L. Trempe, secretary	Merchant	Sault Ste. Marie	1885
	Thos. Ryan	Farmer	Sault Ste. Marie	1886
Clare	G. J. Cummins, chairman	Lawyer	Farwell	1885
	T. W. Averill, Secretary	Book-keeper	Harrison	1884
				1886
Clinton	S. W. Baker, chairman	Teacher	Ovid	1885
	Will H. Brunson, secretary	Teacher	St. Johns	1884
	Chas. E. Hollister	Surveyor	Laingsburg	1886
Crawford	Wm. Putnam, chairman	Clergyman	Grayling	1884
	W. A. Masters, secretary	Postmaster	Grayling	1886
	S. Revell	Farmer	Roscommon	1885
Delta	Herman Winde, chairman	Farmer	Brampton	1884
	E. P. Lott, secretary		Escanaba	1886
				1885
Eaton	J. Estabrook, chairman	Teacher	Olivet	1884
	J. L Wagner, secretary	Teacher	Grand Ledge	1885
	Miss M. L. Jones	Teacher	Charlotte	1886
Emmet	J. L. Morrice, chairman	Merchant	Harbor Springs	1885
	W. S. Potter, secretary	Clergyman	Petoskey	1884
	A. L. Deuel	Lawyer	Harbor Springs	1886
Genesee	A. E. Ransom, chairman	Editor	Flushing	1886
	G. F. Brown, secretary	Farmer	Swartz Creek	1885
	E. D. Black	Farmer	Davison Station	1884
Gladwin	Willis H. Cole, chairman	Farmer	Gladwin	1884
	C. C. Fouch, secretary	Lawyer	Gladwin	1885
	F. L. Prindle	Lawyer	Gladwin	1886

TABLE XXV.—*Continued.*

Counties.	Names.	Occupations.	Postoffice Addresses.	Years when Terms Expire.
Grand Traverse	H. G. Reynolds, chairman	Farmer	Old Mission	1884
	C. J Kneeland, secretary	Physician	Traverse City	1885
	S. G. Burkhead	Teacher	Traverse City	1886
Gratiot	I. N. Cowdry, chairman	Farmer	Pompeii	1884
	G. T. Brown, secretary	Lawyer	Ithaca	1885
	H. R. Pattengill	Teacher	Ithaca	1886
Hillsdale	A. E. Masters, chairman	Teacher	Reading	1885
	W. A. Drake, secretary	Teacher	Hillsdale	1884
	C. R. Coryell	Farmer	Jonesville	1886
Houghton	C. W. Niles, chairman	Physician	Calumet	1884
	S. E. Whitney, secretary	Teacher	Hancock	1885
	W. B. Northup	Clerk	Hancock	1886
Huron	A. J. Swain, chairman	Teacher	Port Austin	1884
	G. A. Maywood, Secretary	Editor	Bad Axe	1886
	E. P. Greene	Teacher	Port Hope	1885
Ingham	A. R. Hardy, chairman	Teacher	Pine Lake	1885
	J. J. Calkins, secretary	Lawyer	Leslie	1884
	J. S. Huston	Teacher	Williamston	1886
Ionia	J. W. Ewing, chairman	Teacher	Ionia	1885
	C. L. Bemis, secretary	Teacher	Portland	1884
				1886
Iosco	D. E. Gulley, chairman	Surveyor	East Tawas	1886
	C. R. Henry, secretary	Lawyer	Au Sable	1884
	S. B. Laird	Teacher	Tawas City	1885
Isabella	M. Devereaux, chairman	Lawyer	Mount Pleasant	1885
	L. C. Griffith, secretary	County Clerk	Mount Pleasant	1884
	P. H. Dodds	Lawyer	Mount Pleasant	1886
Jackson	David E. Haskins, chairman	Teacher	Concord	1884
	Eugene Miller, secretary	Teacher	Grass Lake	1886
	D. C. Pierce	Teacher	Brooklyn	1885
Kalamazoo	G. T. Hall, chairman	Farmer	Portage	1884
	Ashley Clapp, secretary	Teacher	Vicksburg	1886
	Alexander Hadlock	Teacher	Kalamazoo	1885
Kalkaska	C. C. Jencks, chairman	Lawyer	Kalkaska	1885
	W. Douglas, secretary	Teacher	Lodi	1884
	T. A. Porter	Clergyman	Kalkaska	1886
Kent	G. A. Ranney, chairman	Farmer	Cannonsburg	1884
	W. M. Chapman, secretary	Teacher	Lowell	1885
	Geo. G. Bennett	Farmer	Grand Rapids	1886
Keweenaw	James C. Dunstan, chairman	Teacher	Central Mine	1886
	C. A. Hanscom, secretary	Teacher	Eagle River	1884
	F. H. Coe	Teacher	Phœnix Mine	1885
Lake	Francis J. West, chairman	Teacher	Baldwin	1885
	Jno. W. Nichoson, secretary	Reg. of Deeds	Baldwin	1884
	D. A. Cornell	Farmer	Chase	1886
Lapeer	Frank Millis, chairman	Lawyer	Lapeer	1884
	Chas H. May, secretary	Book-keeper	Imlay City	1886
	F. S. Porter	Farmer	North Branch	1885
Leelanaw	S. J. Hutchinson, chairman	Physician	Northport	1884
	Mrs. M. A. W. Dunlap, secretary	Teacher	Traverse City	1885
	Wm. H. Crowell	Merchant	Maple City	1886
Lenawee	A. E. Curtis, chairman	Teacher	Adrian	1884
	Ira Waterman, secretary	Teacher	Hudson	1885
	Henry Wilson	Teacher	Blissfield	1886
Livingston	H. E. Reed, chairman	Farmer	Howell	1885
	Thos. Gordon, Jr., secretary	Teacher	Howell	1884
	Milo M. Abbott	Farmer	Plainfield	1886
Mackinac	Geo. A. Cady, chairman	Lawyer	St. Ignace	1885
	Chas. Connor, secretary	Lawyer	St. Ignace	1884
	J. R. Bailey	Physician	Mackinac	1886
Macomb	O. D. Thompson, chairman	Teacher	Romeo	1884
	S. B. Russell, secretary	Printer	Mount Clemens	1885
	A. M. Keeler	Teacher	Armada	1886
Manistee	Jas. Dodd, chairman	Farmer	Bear Lake	1884
	Geo. H. Kilborn, secretary	Farmer	Bear Lake	1885
	D. S. Harley	Lawyer	Manistee	1886
Manitou	Wm. J. Gallagher, chairman	Fisherman	St. James	1885
	Michael F. O'Donnell, secretary	Clerk	St. James	1884
	Jno. Dunlevy	Shoemaker	St. James	1886
Marquette	Jno Northmore, chairman	Teacher	Republic	1885
	Chas. Kelsey, secretary	Teacher	Marquette	1884
	Harlow Olcott	Teacher	Ishpeming	1886

TABLE XXV.—*Continued.*

Counties.	Names.	Occupations.	Postoffice Addresses.	Years when Terms Expire.
Mason	S. N. Hill, chairman	Clergyman	Ludington	1884
	G. H. Blodgett, secretary	Lawyer	Ludington	1886
	Mrs. E. W. Loomis		Scottville	1885
	———, chairman			1886
Mecosta	P. M. Brown, secretary	Farmer	Big Rapids	1884
	W. D. Hopkinson	Merchant	Paris	1885
Menominee	J. W. Bird, chairman	Merchant	Menominee	1886
	A. W. Bill, secretary	Clergyman	Menominee	1885
				1884
Midland	Joseph Mayer, chairman	Teacher	Midland	1885
	T. W. Crissey, secretary	Editor	Midland	1884
	Wm. W. Allen	Teacher	Midland	1886
Missaukee	Abraham Stout, chairman	County Clerk	Lake City	1884
	Jno. T. Stitt, secretary	Merchant	Norwich	1886
	Duncan McBain	Farmer	Cadillac	1885
Monroe	Jno. F. Gilday, chairman	Farmer	La Salle	1885
	Joseph R. Rogers, secretary	Farmer	Willits	1884
	Thomas Allen			1886
Montcalm	F. A. Lyon, chairman	Lawyer	Stanton	1885
	E. P. Church, secretary	Teacher	Greenville	1884
	S. F. Kennedy	Teacher	Lakeview	1886
Montmorency	Jonathan Wiggins, chairman	Farmer	Hillman	1886
	A. T. Rensberry, secretary	Editor	Hillman	1885
	August Bargehr	Farmer	Atlanta	1884
Muskegon	S. M. Burgess, chairman	Teacher	Fruitport	1884
	N. L. Downie, secretary	Teacher	North Muskegon	1886
	J. H. Cogshall	Teacher	Trent	1885
Newaygo	Jno. Harwood, chairman	Teacher	Alleyton	1884
	Tyson Smith, secretary	Physician	Newaygo	1886
	E. H. Hillman	Lumberman	Newaygo	1885
Oakland	Thos. S. Clark, chairman	Farmer	Rose	1885
	Elmer R. Webster, secretary	Lawyer	Pontiac	1884
	Clark Stanton	Teacher	Holly	1886
Oceana	Seth Edson, chairman	Surveyor	Hart	1885
	F. W. Van Wickle, secretary	Druggist	Shelby	1884
	Geo. C. Myers	Farmer	New Era	1886
Ogemaw	F. J. Stottle, chairman	Farmer	Churchill	1884
	J. F. Gregg, secretary	Teacher	Prescott	1885
				1886
Ontonagon	C. L. Dubuar, chairman	Teacher	Rockland	1885
	J. S. Monroe, secretary	Teacher	Ontonagon	1884
	Geo. Arnold	Teacher	Greenland	1886
Osceola	J. S. Van Winkle, chairman	Merchant	Hersey	1885
	Ed. H. Woods, secretary	Book-keeper	Leroy	1884
	J. B. Sleezer	Lumberman	Sears	1886
Oscoda	S. H. Hagaman, chairman	County Clerk	Mio	1884
	Jno. Randall, secretary	Editor	Mio	1885
	Geo. W. Randall	Farmer	Harmon	1886
Otsego	F. A. Baldwin, chairman	Lawyer	Gaylord	1884
	John M. Sanborn, secretary	Surveyor	Gaylord	1885
	Henry Whitely	Agent	Gaylord	1886
Ottawa	E. B. Fairfield, Jr., chairman	Teacher	Grand Haven	1884
	A. W. Taylor, secretary	Teacher	Coopersville	1885
	Mrs. A. V. Weatherwax	Housekeeper	Jenisonville	1886
Presque Isle	Robert J. Horn, chairman	Merchant	Rogers City	1885
	Andrew E. Banks, secretary	Farmer	Rogers City	1884
	Philip H. Inglesby	Lawyer	Rogers City	1886
Roscommon	Geo. Alexander, chairman	Lawyer	Roscommon	1884
	J. Armstrong, secretary	Clergyman	Roscommon	1885
	M. F. Parker	Teacher	Roscommon	1886
Saginaw	R. C. Sellman, chairman	Teacher	Chesaning	1885
	J. S. Goodman, secretary	Clergyman	East Saginaw	1884
	O. B. Cubbage	Physician	Freeland	1886
St. Clair	Lincoln Avery, chairman	Teacher	Port Huron	1885
	Darwin Drake, secretary	Teacher	Goodells	1884
	Harvey Tappan	Teacher	Columbus	1886
St. Joseph	J. W. Bentley, chairman	Farmer	Mendon	1886
	J. G. Plowman, secretary	Teacher	White Pigeon	1884
				1885
Sanilac	Geo. A. Parker, chairman	Teacher	Port Sanilac	1884
	Clarence L. Messer, secretary	Book-keeper	Marlette	1886
	O. E. Swift	Teacher	Lexington	1885
Schoolcraft	E. C. Cox, chairman	Merchant	Munising	1885
	Geo. K. Newcombe, secretary	Lawyer	Manistique	1884
	Mrs. Nellie C. Mersereau	Housekeeper	Manistique	1886

TABLE XXV —*Continued.*

Counties.	Names.	Occupations.	Postoffice Addresses.	Years when Terms Expire.
Shiawassee	W. D. Castle, chairman	Farmer	Bennington	1884
	G. R. Brandt, secretary	Teacher	Byron	1885
	G. W. Sickles	Teacher	Gaines Station	1886
Tuscola	E. A. Brown, chairman	Teacher	Fostoria	1884
	C. Q. Tappan, secretary	Teacher	Vassar	1886
	A. C. Brower	Teacher	Caro	1885
Van Buren	A. C Martin, chairman	Editor	Paw Paw	1885
	A. E. Rose, secretary	Teacher	South Haven	1884
	A. E. Jennings	Teacher	Lawrence	1886
Washtenaw	Edwin C. Warner, chairman	Contractor	Ypsilanti	1885
	Wooster W. Beman, secretary	Teacher	Ann Arbor	1884
	Geo. S. Wheeler	Merchant	Salem	1886
Wayne	F. R. Ward, chairman	Teacher	Oak	1885
	C. T. Grawn, secretary	Teacher	Plymouth	1884
				1886
Wexford	H. C. Foxworthy, chairman	Teacher	Manton	1884
	H. M. Enos, secretary	Teacher	Cadillac	1885
	Geo. S. Hicks	Clergyman	Sherman	1886

DOCUMENTS

ACCOMPANYING THE

REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

UNIVERSITY OF MICHIGAN.

REPORT OF THE BOARD OF REGENTS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The annual report of the Board of Regents of the University of Michigan is herewith submitted, as required by the Legislature in Act No. 206, Laws of 1881.

For the purpose of securing greater convenience and efficiency in the transaction of business, and especially of more immediate and personal supervision in the various departments of the University, the Board of Regents has been accustomed of late to appoint different Standing Committees—each of said Committees to consist of three Regents; and their term of service to continue for two years. These Committees are as follows: Executive Committee; Committee on Finance; Committee on Literary Department; Committee on Law Department; Committee on Medical Department, Homœopathic College, and Dental School; Committee on Library; Committee on Museum, School of Mines, and Astronomical Observatory; Committee on Chemical and Pharmaceutical Department; Committee on Buildings and Grounds.

I. EXECUTIVE COMMITTEE.

This committee is composed of the President, and Regents Blair, Duffield, and Norris.

In addition to the ordinary business of this committee, duly reported and acted on by the Board, we may note several other items of interest and importance in the history of the Institution:

1. The completion and publication by the Committee and adoption by the Board of a thoroughly revised and digested code of By-Laws.
2. The careful consideration and report of the committee on the subject of salaries—with a view to such alterations by the Board in the interest of true economy, and more perfect instruction, as the Board may deem desirable.
3. The full organization of the executive committee, requiring record of its proceedings to be made by the regular Secretary of the Board.
4. The formal action of the Board, giving the President the right to vote in said committee.
5. The duty of the executive committee, as made by the new By-Laws, to make the annual report as required by law to the Superintendent of Public Instruction.

A very natural, and perhaps on the whole the most satisfactory way hereafter of making such report would seem to be to follow the regular order of the several standing committees as they stand upon the roll.

II. Finance Committee.

This committee consists of Regents S. S. Walker, Grosvenor, and Van Riper.

For a full report of this committee, see Schedule B, herewith appended.

III. Literary Department.

The committee on the Literary Department is composed of Regents Duffield, Joy, and Norris.

For a thorough exhibit of the number of courses of study, of hours per week, and of students at the time of examinations, see Schedule C; for a table showing the text books used in the various courses of instruction, see Schedule D, and for a report of the School of Political Science, see Schedule E.

In April, by the death of Rev. Benjamin F. Cocker, D. D., LL. D., Professor of Psychology, Speculative Philosophy, and Philosophy of Religion, that chair was left vacant. In August last it was tendered to Rev. Jacob Cooper, D. D., LL. D., Professor of Greek in Rutgers College, N. J., whose final decision has not yet been received. Meanwhile provision has been made for the occupancy of the chair during the first Semester by the appointment of Professor Geo. H. Howson, LL. D.

The following is a summary of students in this Department:

Resident Graduates	25	
Candidates for a Degree	410	
Students not Candidates for a Degree	89	524

IV. Law Department.

Regents Joy, Blair, and Shearer constitute the committee on this Department.

The course in the Law School has been lengthened to two terms of nine months each.

In March last Hon. Alpheus Felch resigned the Tappan Professorship of Law, and Henry Wade Rogers, A. M., was elected as his successor.

The number of students in this Department has been:

Seniors	158
Juniors	175
Total	333

V. Medical Department, Homœopathic College, and Dental School.

The committee is composed of Regents Grosvenor, Joy, and Van Riper.

For a full report of the Medical Department, attention is directed to Schedule F.

Relative to the Homœopathic Medical School, the following, from the President's annual report is submitted:

"The Homœopathic Medical School has not, thus far, secured the attendance which was expected by its friends, although it has been treated gener-

ously by the Legislature and cared for with the greatest attention by the Regents. This fact is due partly to the competition of schools which bestow degrees on the completion of a much shorter course than ours, and partly, it must be confessed, from the unfriendly attitude of some who ought to be the friends of a Michigan school. The Regents can do no more than to administer in good faith, as they have done, the trust confided to them by the Legislature. It is hoped that the establishment of a new chair, that of obstetrics and the diseases of women and children, will strengthen the school. But unless the Homœopathic physicians of the State, at whose urgent solicitation the school has been founded and supported by the Legislature, generally give it their aid, it cannot in the highest degree accomplish the purpose for which it was organized."

The Dental School is left in the anomalous condition of *being the only department of the University which has a short term.* For a full report of this School, see Schedule G.

VI. The Library.

The committee on Library consists of Regents Duffield, Van Riper, S. S. Walker, and the President.

The year 1883 was an ever memorable year in the history of the Library of the University. As the people of Athens stood with joy on the Acropolis before the completed Parthenon, so on December 12th, 1883, did the friends of the University stand within the completed walls of the new fire proof Library Building, Not a few brought with them old and valuable books, and the best of all is, we have reason to believe, this is but the first fruits of a large increase of similar gifts for all time to come. For a full account see the report of the proceedings at the time of the dedication—Schedule K.

VII. Museum, School of Mines, and Astronomical Observatory.

The committee on the Museum, School of Mines, and Astronomical Observatory is composed of Regents Van Riper, Blair, and Norris.

The general museum and all the other museums have been arranged into one general system, giving separate curators the charge of those things that pertain to their several departments.

Other improvements have been made in the School of Mines and the Observatory, both of which are now in working order.

VIII. Chemical and Pharmaceutical Department.

The committee of the Board having in charge this department consists of Regents Joy, Shearer, and Blair.

Under the new by-laws this department has also been increased in its efficiency, and inasmuch as it has already about as many students as it can accommodate, the aim of its Faculty now is by increasing the requirements of admission, to elevate the work rather than to enlarge the classes.

IX. Buildings and Grounds.

Regents Shearer, Walker, and Grosvenor form the committee on Buildings and Grounds.

This committee have the honor of reporting that their onerous labors in the erection of the Library Building have been crowned with the most complete success. For full particulars see the report of the chairman of this committee

as presented at the dedication of the Library Building, December 12, 1883, Schedule K.

Conclusion.

The University of Michigan still exhibits steady growth and progress. Its reputation both at home and abroad has not only been sustained, but largely increased. "It is fulfilling the indispensable condition of prosperity, by seeing its wants outrun its supplies. So vigorous a growth develops new needs." What these needs are will be found in the President's report. (Schedule A.)

Thankful for the many private favors received the past year, in some respects larger than ever before, the Board of Regents record with great satisfaction, "that as usual our chief benefactor has been the State."

All which is respectfully submitted.

JAMES B. ANGELL,
AUSTIN BLAIR,
GEORGE DUFFIELD,
Executive Committee.

A.

PRESIDENT'S ANNUAL REPORT.

To the Honorable Board of Regents:

I have the honor to submit to you my Annual Report for the academic year ending September 30th.

The changes in the Faculties have not been numerous. In March last Hon. Alpheus Felch resigned the Tappan Professorship of Law, and subsequently Henry Wade Rogers, A. M., was elected as his successor.

In April last the University sustained a most serious loss in the death of Rev. Benjamin F. Cocker, D. D., LL. D., Professor of Psychology, Speculative Philosophy, and Philosophy of Religion. He was called to the Chair of Mental and Moral Philosophy on the retirement of Dr. Haven from the University in 1869. During all the period since that date he had devoted himself to the service of the University with signal fidelity and distinguished ability. He had an unusual power of attracting his pupils, of winning their affection and of wielding a beneficent moral influence over them. His published philosophical works have reflected honor on him and on the University.

In August last the Chair made vacant by the death of Dr. Cocker was tendered to Rev. Jacob Cooper, D. D., Professor of Greek in Rutgers College. He has not yet decided whether he will accept it.

Provision has been made for the occupancy of the Chair during the first semester, during which instruction is given in Psychology, Logic and Speculative Philosophy, by the appointment of Prof. George H. Howson, LL. D.

Prof. E. C. Franklin, M. D., resigned the Chair of Surgery and Clinical Surgery in the Homœopathic Medical College in July last, and in August, H. L. Obetz, M. D., was appointed his successor. The new Chair of Obstetrics and Diseases of Women and Children in the Homœopathic College, which was provided for by an appropriation of the last Legislature, has been filled by the appointment of Newton Baldwin, M. D.

In September the Executive Committee appointed William A. Campbell, M.

D., Assistant in Microscopy and General Histology in place of Lorin Hall, M. D., resigned, and Clarence G. Taylor, B. S., Assistant in the Mechanical Laboratory.

On the first of February, 1883, Harrison Soule, Jr., succeeded William A. Tolchard in the office of Treasurer, and James H. Wade succeeded Henry D. Bennett in the offices of Secretary and Steward. Mr. Tolchard and Mr. Bennett had both tendered their resignations on January 3d. The former had held his position more than four years and a half, the latter about thirteen years.

The titles of some of the members of the Faculties have been changed. Dr. Herdman is now styled Professor of Practical and Pathological Anatomy and Demonstrator of Anatomy; Dr. Geo. A. Hendricks, Instructor in Anatomy and Curator of the Medical Museum; W. W. Beman, Associate Professor of Mathematics; Dr. Vaughan, Professor of Physiological and Pathological Chemistry and Associate Professor of Therapeutics and Materia Medica; and Dr. Stowell, Professor of Histology and Microscopy.

Degrees have been conferred as follows:

DEGREES ON EXAMINATION.

Bachelor of Letters	3
Bachelor of Science	9
Bachelor of Philosophy	18
Bachelor of Arts	51
Master of Letters	2
Master of Science	3
Master of Philosophy	2
Master of Arts	10
Doctor of Medicine (Dep't of Medicine and Surgery)	117
Bachelor of Laws	154
Pharmaceutical Chemist	36
Doctor of Medicine (Homœopathic College)	16
Doctor of Dental Surgery	29
	450

HONORARY DEGREES.

Master of Arts	2	
Doctor of Philosophy	1	
Doctor of Laws	2	5
		455

Of the Bachelors of Science six had pursued the course in Civil Engineering, and one the course in Mechanical Engineering.

The total number of students in attendance was 1,440, distributed as follows:

DEPARTMENT OF LITERATURE, SCIENCE, AND THE ARTS.

Resident Graduates	25	
Candidates for a Degree	410	
Students not Candidates for a Degree	89	524

DEPARTMENT OF MEDICINE AND SURGERY.

Resident Graduates	2	
Third Year Students	120	
Second Year Students	120	
First Year Students	127	—369

DEPARTMENT OF LAW.

Seniors	158	
Juniors	175	—333

SCHOOL OF PHARMACY.

Resident Graduates	2	
Second Year Students	41	
First Year Students	44	— 87

HOMŒOPATHIC MEDICAL COLLEGE.

Students—Total in the College	58

COLLEGE OF DENTAL SURGERY.

Students—Total in the College	69
	1,440

As compared with the previous year there was an increase in the number of students in the Literary Department, but a decrease in all the other Departments. It is believed that this decrease, which was anticipated, was in large rt due to the increase made in the fees. It is gratifying to see that the numr of Michigan graduates was nearly doubled.

The number of women in attendance was as follows:

Literary Department	107
Department of Medicine and Surgery	43
Department of Law	3
School of Pharmacy	2
Homœopathic Medical College	13
Dental College	2
	170

A little less than three fifths of the students in the Literary Department, and about one-third of the students in the Professional Schools are from Michigan. This State furnished as usual about 47 per cent. of all the students in the University. All the Eastern, Middle, and Western States, as is generally the case, were represented among our undergraduates. So too were all of the Southern States, but three, five of our Territories, and Ontario, New Brunswick, Nova Scotia, England, Ireland, Scotland, Roumania, and the Hawaiian Islands.

As we have now for thirteen years, without the least embarrassment, admitted women to all the privileges of instruction in the University, we cannot but observe with gratification how rapidly public opinion, both in Europe and America, is coming to approve the granting of substantially the same opportunities for education to women as to men. It may be questioned whether this change in public sentiment is not the most important event in the educa-

tional history of the last fifteen years. We shall risk little in predicting that the institutions in this country which are furnishing separate instruction of a high grade to each of the sexes, will at no distant day find, like ourselves, that there is no adequate reason why they should not save labor and expense by educating the male and the female students, for the most part, in the same class-rooms.

Some of the friends of the University have during the year given very gratifying proofs of their interest in her welfare.

One who does not permit his name to be disclosed at present placed the sum of twenty-five hundred dollars in the hands of Professor C. K. Adams, and asked him to expend it in the purchase of historical works for the general library. A most judicious choice of about fourteen hundred volumes has accordingly been made by the Professor of History.

Through Professor Adams also, three gentlemen, Mr. E. C. Hegeler of La Salle, Ill., Mr. J. J. Hagerman of Milwaukee, Wis., and President Andrew D. White of Cornell University, have also presented a peal of five bells, which have been placed in one of the towers of the new Library. It is expected that a clock will be placed in the tower and that the hours and quarter-hours will be struck upon the bells.

Mr. James McMillan of Detroit has given us a most valuable Shakspeare Library. It is well known that Hon. E. H. Thomson of Flint, had for many years been making a choice collection of editions of Shakspeare and of books illustrative of the great poet's works. In order that this collection might be placed permanently in our library, Mr. Thomson consented to dispose of it for a sum much smaller than the valuation he had placed upon it and smaller than its cost to him. Mr. McMillan first gave us five thousand dollars, which enabled us to purchase the Thomson collection and to make important additions to it. He has since generously placed fifteen hundred dollars more at our disposal for making further additions to the collection. The McMillan Shakspeare Library will therefore contain about double the number of volumes which were in the Thomson library, and will take high rank among the Shakspearean collections in America.

Now that we have a fire-proof Library Building and Art Gallery, we may cherish the hope that other generous men will be inclined to imitate the example which these, our benefactors, have set. I think we may properly call attention to the desirableness of enlarging our collection in the Fine Arts. Our galleries for paintings and sculpture are admirably suited for this purpose.

I may state in this connection, as I do with gratitude, that the generosity of a few gentlemen in Detroit has placed the University on the list of institutions which are supporting the American School of Classical Studies at Athens. The school has been established to give graduates of American colleges an opportunity to study Classical Literature, Art, and Antiquities in Greece under proper direction. Fourteen American Colleges are now coöperating in its support. By the contribution of something more than two thousand dollars by our friends in Detroit our graduates can now be admitted to the privileges of the school.

As usual, our chief benefactor has been the State. The Legislature at its last session made the following appropriations, and with a heartiness, which merits and receives our warmest appreciation: For books for the library, 1883, $7,500; 1884, $7,500; for new boilers and connections, $8,000; apparatus for

the physical laboratory, 1883, $1,500; 1884, $1,500; assistants in mechanical laboratory, 1883, $1,000; 1884, $1,000; apparatus for mechanical laboratory, 1883, $1,500; 1884, $1,500; apparatus for physiological laboratory $2,000; homœopathic college, 1883, $2,000; 1884, $2,000; dental college, 1883, $6,000; 1884, $6,000; University hospital, 1883, $3,500; 1884, $3,500; homœopathic hospital, 1883, $2,000; 1884, $2,000; addition of a professorship in homœopathic college, 1883, $2,200; 1884, $2,200. Total, 1883, $37,200; 1884, $27,200. The readiness with which for years the Legislatures have responded to our requests for assistance warrants the belief that we may rely upon the State to supply our most pressing needs. It will doubtless continue to be the policy of the Board of Regents to ask of the Legislature no help which is not imperatively needed to maintain the standing and usefulness of the University. But it should not be forgotten that if a University is discharging its true function, it can never cease needing large assistance. And especially should we aim to impress our alumni and other friends with the truth that when the State has done all that it can fairly be asked to do for the University, there is always ample opportunity for private benefactions to be most wisely and usefully bestowed. It would be a pity if the beneficence of the State should dry up in Michigan those fountains of private generosity which in the East pour their welcome streams into the treasuries of the great schools of learning. The gifts which have this year been made to the library awaken in us the hope that the University may henceforth receive more abundantly than she has received in the past, the visible tokens of that pride and interest in her, which we believe is cherished by the citizens of Michigan and by all her alumni.

The work of the last year in the Literary Department is deserving of special remark. While care has been taken to secure the usual thoroughness in those fundamental studies which are required in the first two years, more has been done than ever before in giving greater efficiency to the advanced studies of the last two years, and to the work of the increased number of graduate students. The average age of our undergraduates at the beginning of their third year in the University is something over twenty-one years. We have deemed it safe and wise to leave to them an almost unlimited freedom in the choice of their studies. This stimulates their enthusiasm in the pursuit of the studies they may elect. With few exceptions they study with a definite and high purpose and with an earnest spirit. We have found what is known in Germany as the "seminary" method of work to be peculiarly adapted to secure the best results in advanced work in certain branches, as for instance: History, political economy, finance, English literature, and some kinds of classical investigation. A small group of students, say ten, is organized for this kind of work. The plan generally followed is substantially as follows: At each meeting some one presents a carefully prepared paper on some assigned topic, a critique upon the paper is read by another member, and then all the others, who have been required to study upon the subject, discuss the topic in presence of the Professor who, himself, sums up the arguments in conclusion. This method is found to stimulate research to an unusual degree. Then the plan introduced last year of working on what has been termed the "university system," bids fair to yield some excellent results. By this plan a student who has completed those fundamental studies which are absolutely required of a candidate for graduation may, at the beginning of his third year, be permitted to concentrate his work for the remaining two years on three branches, one

being taken as his major or principal subject, and the two others as his minor or subsidiary subjects. The primary aim is to enable gifted men to advance very far upon certain chosen lines of work. Supposing them to have mastered the elements of various kinds of knowledge, it then furnishes them an opportunity to learn much of some few subjects rather than to spend their time in learning a little about each one of several branches. It allows them to study in a freer spirit and method than in the earlier part of the course. One year's work furnishes too few data to base a conclusion upon. But I am confident that if executed with care the plan will be most helpful to some of our most brilliant scholars. Our resident graduates do, in fact, generally work substantially on this plan. You must be gratified to notice that the number of this class of our students has nearly doubled during the last year. Their presence is always inspiring and helpful in the conduct of our undergraduate work. We now have so large facilities for guiding the studies of graduates that we are hoping, and not without good grounds, to attract hither an increasing number, not only of our own graduates, but also of the graduates of other institutions, whose means of giving advanced instruction are not so ample as ours.

We have this year pursued a more careful and formal and public method of examining candidates for higher degrees. Two or three hours were given to the final examination of each, and to the reading and defending, by the candidate, of an elaborate thesis. The programme of these examinations was printed and circulated in advance. The public were invited to the reading of the theses and to the examinations on them. I think that all who were present will agree that the examinations were rigorous and searching. Seventeen candidates obtained the Master's degree. Some candidates for higher degrees failed on examination.

What has been said above concerning the advanced work both of undergraduates and of resident graduates should be understood as applying to the School of Political Science, which is considered as a part of the Literary Department, though maintaining for certain purposes a distinct organization. Students are not admitted to the School until after the completion of their "required studies, nor until the beginning of their third year of collegiate residence." Their work is pursued under the university system, for which the character of the studies is particularly suited. Fifteen undergraduates and three graduates were enrolled in that school. They pursued their studies with much enthusiasm. The following courses of instruction are specially included in the work of the school of Political Science, though they may be elected by any of the undergraduates: Political and Constitutional History, twelve courses; Economic Sciences, eight courses; Social, Sanitary, and Educational Science, three courses; Constitutional Administration and International Law, six courses. The almost simultaneous organization of work of this character in several of our leading universities shows that the need of it is widely recognized.

One of the results of the fresh enthusiasm in our more advanced work has been the forming of associations, comprising undergraduates, graduates, and Professors, for the presentation and discussion of papers upon various subjects. Societies of this kind have been formed by those interested in philology, in historical and political science, in engineering, and in the natural and physical sciences. Their meetings are sustained with great interest. They serve to bring Professors and students into most profitable relations and actively stimulate original research.

I think no one can be familiar with the interior life of our Literary Department without perceiving that our advanced students are imbued with the spirit of genuine university work. They are not studying for marks or credits, but with a sincere devotion to learning are seeking in a most generous and earnest spirit the broadest and deepest culture attainable here.

For the last few years we have in our policy recognized a sharp line of demarcation between the work of the first two years and that of subsequent years. The former we have treated as gymnasial or academic; the latter we have aimed to shape in the large and free spirit of university work. The question has often been asked us why we do not altogether drop the former and confine ourselves to the latter, which our title of University seems to call us to prosecute. For myself, I wish that we might do so. If the high schools or the several colleges of the State could relieve us of the labor of the first two years, and send us the students as well prepared as they now are at the beginning of the third year, I should esteem it a good fortune to the University to be able to take them at that stage and carry them on through advanced courses in literature and science, or through the Professional Schools. But the high schools would find it impracticable to perform that duty, and the colleges could hardly be expected to part with their students at the end of the second year. The necessity therefore seems to rest on us of furnishing the gymnasial preparation as well as attempting to do all we can of the higher work.

The modest beginning which we made in furnishing to students of engineering and especially of mechanical engineering, instruction and practice in shop-work was most helpful to them. We shall be able to furnish much larger facilities to them during the coming year. It seems to be demonstrated by the experience of the technical and engineering schools that the aid furnished by the mechanical laboratory and the shop is of the greatest service to students who are to be mechanical, civil, or mining engineers, or architects.

In the Department of Medicine and Surgery the first class graduated which had been required to complete three terms' work of nine months each. It is gratifying to note that the class was the largest ever graduated from that school. This demonstrates that the medical profession were fully ready for the step which we took in lengthening the time of study. I cannot but believe that they will sustain us in raising somewhat rapidly the requirements for admission, although hardly any schools in the country venture to insist on any special preparation or to establish so prolonged a course as ours. It cannot be questioned that the elevation of our standard of admission and work has brought us a better class of students. There is hardly a more pressing educational need than that of demanding a better education for physicians, to whom such great interests are entrusted.

An important and, I believe, a most useful step has been taken in the lengthening of the course in the Law School to two terms of nine months each. The bar of the country is manifesting an increased interest in the subject of legal education. The conditions of admission to the bar are, in many states, so low that persons of the most slender talent and education can easily meet them. The instruction usually given in offices is so meagre that the Law Schools are more and more relied on for the training of those who desire a thorough legal education. It seems to depend largely on the schools, therefore, to determine whether the standard of legal education shall be raised. This is a responsibility which the schools should meet in the heartiest spirit. There is much difference of opinion among Professors of Law concerning the best methods of instruction. But there can be no difference of opinion concerning

the duty of a University Law School to organize and conduct its work so as to insure a high grade of professional education to its students.

The School of Pharmacy has been raising its standard of admission and grade of work, until now in these respects it stands at the head of such schools in this country. It has about as many students as it can accommodate. The aim of its Faculty has been, by increasing the requirements of admission, to elevate the work rather than to enlarge the classes.

The Homœopathic Medical School has not, thus far, secured the attendance which was expected by its friends, although it has been treated generously by the Legislature and cared for with the greatest attention by the Regents. This fact is due partly to the competition of schools which bestow degrees on the completion of a much shorter course than ours, and partly, it must be confessed, from the unfriendly attitude of some who ought to be the friends of a Michigan school. The Regents can do no more than to administer in good faith, as they have done, the trust confided to them by the Legislature. It is hoped that the establishment of a new Chair, that of Obstetrics and the Diseases of Women and Children, will strengthen the school. But unless the Homœopathic physicians of the State, at whose urgent solicitation the school has been founded and supported by the Legislature, generally give it their aid, it cannot in the highest degree accomplish the purpose for which it was organized.

The Dental School, though its means have proved to be a little too limited, has won for itself a high reputation. It is clear that the term should, as soon as possible, be lengthened to nine months. Some of the students now voluntarily remain nine months in one of the two years to complete their work. But as no regular provision is made for systematic instruction after the close of the six months' term, some embarrassment is experienced and the best results are not gained. As the law term has been extended, the Dental School is left in the anomalous condition of being the only department of the University which has a short term. On every account it seems desirable to put it on the same footing in this respect as the other departments.

In accordance with a by-law recently adopted I beg leave to call your attention to the condition of our Museums, as indicated in the reports of the several curators, herewith submitted.

The only additions to the Museum of Fine Arts during the year have been the contributions of Dr. A. E. Richards, residing in Europe, to the Richards collection of Coins. This collection now contains about 850 specimens, chiefly of Greek, Roman, and Byzantine coins. A catalogue of them has been prepared, though not printed. Our works of art in the form of large and small statuary, paintings, engravings, and photographs number 237; the gems and medallions in the Horace White collection, and in the Governor Bagley collection, 1,789. The total number of gems, medallions, and coins is 2,639. Now that so spacious and elegant rooms are to be provided for our Art collections in the new Art Gallery, it is to be hoped that we may receive valuable additions through the generosity of our friends.

In the General Museum are stored our collections in Mineralogy, Paleontology, Geology, Zoölogy, and Ethnology. The work of re-cataloguing the mineralogical specimens is nearly completed. During this work about 800 new entries have been made. Numerous and valuable gifts have been received, and some specimens have been purchased. An annual appropriation for the increase of the collection could be wisely expended.

The paleontological specimens are arranged in biological order. During the

year the whole collection of fossil plants has been investigated and arranged. A few valuable gifts have been received. Cases are needed for some of the largest specimens, which are suffering from exposure.

The curator of the zoölogical and ethnological collections reports that the work of making a scientific arrangement of our birds has engaged attention during the past year and is not entirely completed. About one hundred and fifty species of shells from the East Indies have been identified. The chief addition has been a case of mammals and birds from Michigan, given by Mr. Hobson, our taxidermist. The ethnological collection still remains stored in the north wing of University Hall from lack of cases in the museum, but must soon be removed.

The work of classifying and mounting the botanical collections has been carried on during the year and is nearly completed. The curator urges certain additions to the collection for the purpose of illustrating instruction.

The Museum of the Department of Medicine and Surgery has been thoroughly examined and re-arranged and re-catalogued during the vacation. About 400 specimens have been added in two years. The accommodations for storing and displaying the collection are much too limited.

The Museum of the Homœopathic Medical College has received fifty dollars a year during the last four years from Dr. J. N. Eckel, of San Francisco. The sum has been chiefly expended for pathological specimens. Dr. Franklin and Dr. A. I. Sawyer have presented, the former one hundred, the latter eighty, surgical specimens. More case-room is needed.

The Dental Museum has received but few additions this year, but it will be increased as soon as new cases can be provided.

The University is fulfilling the indispensable condition of prosperity by seeing its wants outrun its supplies. So vigorous a growth develops new needs. Even if they cannot all be met, it is well to keep them clearly before us.

We should have the full time of the Professor of Political Economy and Finance, who now divides his labors between us and another university. We ought to have an instructor in English, who could give his labors largely to teaching elocution. There is a demand for instruction in the Oriental Languages and Literatures. The zeal of one of our Assistant Professors of Modern Languages has provided instruction in Sanskrit for the last few years. There are always students here who would be glad of an opportunity to take up Hebrew, especially as a preparation for their theological studies.

The day is not distant when some ampler provision of room must be made for the physiological and microscopical laboratories. They are now accommodated in the old Medical College, which has become too strait for the Department of Medicine and Surgery. The work in physiology and microscopy has been largely developed and expanded during the last few years, to the great advantage of our students, and the classes are over-running the quarters assigned them.

It is much to be desired, too, that the physical laboratory should be transferred to the ground floor of some building. Many of the investigations and experiments in physical study can be successfully made only in rooms where there is less movement in the walls than is always found in the higher stories of any building. As our engineering classes are growing so rapidly, it may be worthy of consideration whether a building should not be erected, which would furnish accommodations to it and to the work in physics.

How earnestly the students desire a gymnasium is shown by their zealous

efforts to raise money for its erection. They have already secured a considerable sum. I have no doubt that a gymnasium properly managed would contribute materially to preserving the health of our students.

Many of the friends of the University will be interested in hearing that the Christian Association, which is composed of students from all departments, has found its room too small for its convenience, and has purchased a lot in front of University Hall with the purpose of erecting there a stone building for its home. This society, which has been in existence many years, has been of great service in stimulating its members to lives of Christian fidelity. It is to be hoped that the good people of the State, who approve of its aims, will generously aid it in its attempt to provide itself with a commodious and permanent home. It is proper to state in this connection that in recent years four of the members of this Associatian have gone to China as medical missionaries, and a fifth is under appointment to enter on the same service next year, that another member, a colored woman, has gone to Africa on missionary duty, and that during the last year five other members have gone to Asia Minor as medical missionaries and teachers.

We are warned by the condition of our Treasury that, unless some permanent addition to our resources is furnished, we must resist all temptations to add any new departments of work to the University. Our General Fund sorely needs either enlargement or some relief from the drafts upon it. It is subjected to an increased drain by the appointment of every new instructor (except in the Homœopathic and Dental colleges), and by the addition of every new building, which is to be lighted, heated, and kept in repair. If some of our Professorships could be endowed, a substantial relief would be afforded to this fund, which is proving inadequate to the increasing burdens it now has to carry.

Clearly our policy must now be to concentrate all our efforts in the development and improvement of the departments already organized. These may fairly be said to suffice for the public needs which this institution can be expected to meet. To strengthen these in the many ways which the progress of science, the development of other Universities and our own experience will suggest and even render necessary, must be our care.

JAMES B. ANGELL;
President.

B.

REPORT OF THE FINANCE COMMITTEE.

The Finance Committee of the Board of Regents herewith present the annual statement of the Treasurer of the University of the receipts and expenditures for the year ending September 30th.

The accounts and vouchers have all been carefully examined and checked, under the direction of the Committee, and found correct.

Three clerical errors, in no way affecting the balances and very slight discrepancies in classification of accounts which, in the change of officers, have incidentally occurred, have all been noted and a sheet embracing all will be filed with the Secretary.

The Committee take great pleasure in testifying to the faithfulness and devotion of the Secretary and the Treasurer to their duties, and to the accu-

racy of their work, and would say that their duties are most burdensome, and that relief in the shape of further assistance and in increased pay should be rendered as early as the Board can find means to do it.

The balance of $45,327.58 in the treasury Sept. 30th was reduced on the 1st instant by the payment of the loan of $4,000 maturing on that day, and by the payment of $27,787, salaries, due also October 1st.

Estimates of the receipts and expenditures for the current year are submitted, and also a table comparing the estimates of receipts and expenditures for the past year with the actual receipts and expenditures, and columns showing the deficiency or excess of expenditures over estimates, and a column comparing the estimates for the current year, which we think will be of considerable interest.

The estimates for the current year are, of course, based on the history of the year past, with such changes taken into account as have been already ordered by the Board.

A review of the general condition of the finances would seem to indicate that, while a slight improvement has been made in the financial condition of the University, the utmost economy will be required, and, if possible, the pruning down of expenditures, before the Board will have a surplus for such equitable distributions in salaries and equipment among the Faculties and Departments as seem to be desirable and necessary.

ESTIMATES OF RECEIPTS FOR THE YEAR ENDING SEPT. 30, 1884.

Balance in Treasury Oct. 1, 1883	$ 45,327 58
To be rec'd for University Interest, three-quarters—five-quarters having been received in 1883	30,000 00
To be received from State, 1-20 Mill Tax	40,500 00
" " " " Homœopathic College	6,000 00
" " " " Law of '83	2,000 00
" " " " Professorship '83	2,200 00
" " " " General Library '83	7,500 00
" " " " Physical Laboratory '83	1,500 00
" " " " Mechanical " "	1,000 00
" " " " Dental College '83	6,000 00
" " " " University Hospital '83	3,500 00
" " " " Homœopathic " "	2,000 00
" " " Sale of Dental College Supplies	500 00
" " " " Anatomical Material to other Michigan Colleges	500 00
To be received from sale of Medicines—University Hospital	340 00
" " " " " Homœopathic Hospital	200 00
" " " State for Library Building	15,000 00
" " " " " Enlargement Steam Heating	4,000 00
" " " Students' fees and Laboratory charges, etc	65,000 00
" " " Interest on Bank account	250 00
Total estimates of receipts	$233,317 58

Estimates of Expenses.

For Salaries of Professors, Officers, and Employés	$131,000 00
" Current expenses Dental College	1,500 00
" " " Homœopathic Medical College	1,500 00
" " " University Hospital	2,700 00
" " " Homœopathic Hospital	2,000 00
" Completion of Library Building	15,732 22
" Alterations and repairs	3,000 00
" Fuel and lights	10,000 00
" Grounds	500 00
" Insurance	1,000 00
" The General Library	12,710 36
" " Removal of Library and expenses incidental thereto	500 00
" " Medical Library	500 00
" " Law "	500 00
" " School of Political Science	300 00
" " Annual Calendar and Regents' Proceedings	3,000 00
" " Postage	850 00
" " Anatomical Material Fund	3,000 00
" " Chemical Laboratory Supplies	7,000 00
" " Microscopical Department	250 00
" " Mechanical Laboratory	2,409 78
" " Astronomical Observatory	500 00
" " Engineering Department	500 00
" " Department of Physics	2,921 20
" " Physiological Laboratory	1,927 06
" " Museum	500 00
" " Payment of Loan	4,000 00
" Commencement Expenses	1,000 00
" Law " "	150 00
" Diplomas and filling same	600 00
" Printing other than Calendar and Regents' Proceedings	500 00
" Lease of water privilege	50 00
" Vouchers not presented	291 41
" Advertising Department of Medicine	200 00
" " Law Department	200 00
" " Homœopathic Medical College	200 00
" " Dental College	200 00
" " School of Pharmacy	200 00
" " Literary Department	200 00
" Enlargement of Steam Heating	6,879 46
" Contingent Expenses	3,000 00
Balance forward September 30, 1884	9,346 09
Total Estimates of Expenditures	$233,317 58

SAMUEL WALKER,
E. O. GROSVENOR,
J. J. VAN RIPER,
Committee.

To the Finance Committee of the Board of Regents:

GENTLEMEN: Herewith please find statement of receipts and disbursements for the fiscal year ending September 30, 1883.

H. SOULE,
Treasurer.

RECEIPTS.

Amount in Treasury October 1st, 1882			$28,118 75
From State Treasurer for University Interest	$47,257 58		
" " " State aid 1-20 Mill Tax, Act of 1873	40,500 00		
" " " Homœopathic Medical College	8,000 00		
" " " Homœopathic College, additional Professor	2,200 00		
" " " College Dental Surgery	4,500 00		
" " " University Hospital	2,625 00		
" " " Library Building	30,000 00		
" " " General Library	7,500 00		
" " " Homœopathic Hospital	1,500 00		
" " " Steam Heating	4,000 00		
" " " Physical Laboratory	1,500 00		
" " " Mechanical Laboratory	1,500 00		
" " " Assistant in Mechanical Laboratory	1,000 00		
" " " Physiological Laboratory	2,000 00	—154,082 58	
" Farmers and Mechanics' Bank, Ann Arbor, loan	6,000 00 4,000 00		
" First National Bank, Ann Arbor, Loan	6,000 00		
" Board Auditors—account boarding of dependent children, Act of 1881	406 27	— 16,406 27	
" Insurance Policy, canceled		15 85	
" T. A. A. & G. T. R. R., Rebate on Coal freight		9 20	
" M. C. R. R., Rebate on Coal freight		334 61	
" First National Bank, Ann Arbor, Interest		576 26	
" Sale of Dental Materials and Supplies		3,379 68	
" " Anatomical Material		533 15	
" " Medicine and Appliances at University Hospital		362 04	
" " Medicine and Appliances at Homœopathic Hospital		283 08	
" Error in Vouchers last year paid		10	
" Reduction in Periodical General Library		3 00	
" Duplicate Book sold " "		3 50	
" Miscellaneous sources		193 02	
From Students' Fees, Laboratory Deposits, etc.:			
" Literary Department	$16,915 00		
" Law "	14,280 00		
" Medicine and Surgery	12,925 00		
" School of Pharmacy	2,890 00		
" Chemical Laboratory	8,566 15		

From Practical Anatomy	$3,685 00	
" Homœopathic Medical College	1,940 00	
" Dental College	2,800 00	
" General Chemistry	285 00	
" Histology	570 00	
" Microscopical Laboratory	186 00	
" Diplomas	4,570 00	
" Duplicate Diplomas	20 00	
	$69,632 15	
Less Fees refunded	2,944 75	
Students Fees, Net		$66,687 40
		$273,933 24

DISBURSEMENTS.

Paid salaries of officers, professors and employés:		
From General Fund	$110,759 90	
" Homœopathic College Fund	6,675 00	
" Dental College Fund	6,500 00	
" University Hospital Fund	1,575 00	
Total amount paid for salaries		$125,509 99
For Current Expenses		42,556 86
" Loans paid		12,000 00
" Homœopathic College special		1,046 85
" Dental College "		1,823 19
" University Hospital "		2,604 38
" Homœopathic Hospital "		1,934 77
" Physiological Laboratory "		72 94
" Physical " "		8 80
" Mechanical " "		90 22
" Library Building "		38,741 38
" General Library "		1,710 59
" Eye and Ear Ward "		70 85
" Board of Dependent Children, special		434 84
" Balance in Treasury September 30, 1883		45,327 58
		$273,933 24

GENERAL FUND.

Receipts.

Balance in Treasury October 1, 1882		13,676 80
From State Treasurer:		
From State Aid 1-20 Mill Tax, Act '73	$40,500 00	
" University Interest	47,257 58	
" Loans, Farmers & Mechanics' Bank, A. Arbor	6,000 00	
" " " " " "	4,000 00	
" " First National " "	6,000 00	
" Sale of Anatomical Material	533 15	

From First National Bank, A. A., interest on deposits		$576 26	
" T., A. A. & G. T. R. R. refunded on contract		9 20	
" M. C. R. R., refunded on contract		334 61	
" Insurance policy cancelled		15 85	
" Miscellaneous sources		193 02	
" Sale of Dental Material	$3,379 68	3,379 68	
" Cost of same	2,824 97		
Net	$554 71		
From students' fees	69,632 15		
Less refunded	2,944 75	66,687 40	$175,486 75
			$189,163 55

Disbursements.

Paid Salaries of officers, professors, and employés	$110,759 99	
" Vouchers, Contingent	5,340 28	
" " Alterations and repairs	3,334 39	
" " Fuel and lights	9,558 68	
" " General Library	671 20	
" " Medical Library	434 98	
" " Physics	120 32	
" " Insurance	2,054 95	
" " Postage	853 37	
" " Grounds	302 08	
" " Physiological Laboratory	694 59	
" " Construction	845 14	
" " Furniture and Fixtures	186 81	
" " Histological Laboratory	69 62	
" " General Chemistry	227 65	
" " Law Library	207 34	
" " Microscopical Laboratory	222 66	
" " Advertising Pharmacy	100 75	
" " Botanical Laboratory	308 55	
" " Steam Heating	550 48	
" " Political Science	69 92	
" " Engineering Department	314 71	
" " Astronomical Observatory	488 49	
" " Advertising Medical Department	252 75	
" " Museum	883 03	
" " Mechanical Laboratory	326 68	
" " Chemical Laboratory	6,652 50	
" " Anatomical Department	2,926 23	
" " Dental Material	488 00	
" " Advertising Law Department	5 00	
" " Loans	12,000 00	
" " Transfers to special funds	1,861 72	
Balance in Treasury September 30, 1883	26,050 69	
		$189,163 55

SPECIAL FUNDS.

Homœopathic Medical College.

Balance in Treasury October 1, 1882	$878 67	
Received from State Treasurer	8,000 00	$8,878 67

Disbursements.

Paid salaries of professors and employés	$6,675 00	
Paid vouchers, current expenses	1,046 85	
Balance in Treasury September 30, 1883	1,156 82	8,878 67
Homœopathic Medical College Additional Professor Act 1883.		
Received from State Treasurer		2,200 00
Balance in Treasury September 30, 1883		2,200 00

Dental College.

Balance in Treasury October 1, 1882	$1,761 64	
Received from State Treasurer	4,500 00	
Transferred from General Fund	1,740 72	
Balance overdrawn September 30, 1883	320 83	8,323 19

Disbursements.

Paid salaries of professors and employés	$6,500 00	
Paid vouchers for current expenses	1,823 19	8,323 19

University Hospital.

Balance in Treasury October 1, 1882	$620 33	
Received from State Treasurer	2,625 00	
Sale of Medicine and Appliances	362 04	
Balance overdrawn September 30, 1883	571 98	4,179 35

Disbursements.

Paid salaries of professors and employés	$1,575 00	
Paid vouchers for current expenses	2,604 35	4,179 35

Homœopathic Hospital.

Balance in Treasury October 1, 1882	$1,296 94	
Received from State Treasurer	1,500 00	
Sale of Medicine and Appliances	283 08	3,080 02

Disbursements.

Vouchers for current expenses	$1,934 77	
Balance in Treasury September 30, 1883	1,145 25	3,080 02

Library Building.

Balance in Treasury October 1, 1882	$9,473 95	
Received from State Treasurer	30,000 00	
Received correction of errors in voucher	10	
Total receipts		39,474 05

Disbursements.

Paid vouchers for construction	$38,741 83	
Balance in Treasury September 30, 1883	732 22	$39,474 05

Eye and Ear Ward.

Balance in Treasury October 1, 1882		88 40

Disbursements.

Paid vouchers for current expenses	$70 85	
Balance in Treasury September 30, 1883	17 55	88 40

General Library.

Balance in Treasury October 1, 1882	$414 45	
Received from State Treasurer	7,500 00	
Received from sale of duplicate books	6 50	
Total receipts		7,920 95

Disbursements.

Paid vouchers	$1,710 59	
Balance in Treasury September 30, 1883	6,210 36	7,920 95

Board of Dependent Children.

Balance in Treasury October 1, 1882	$28 57	
Received from Board of State Auditors	406 27	
Total receipts		434 84

Disbursements.

Paid vouchers for Board of Dependent Children	434 84

Sewer.

Balance overdrawn October 1, 1882	$121 00
Transferred to General Fund	121 00

Mechanical Laboratory.

Received from State Treasurer	1,500 00

Disbursements.

Paid vouchers for current expenses	$90 22	
Balance in Treasury September 30, 1883	1,409 78	1,500 00

Mechanical Laboratory Assistant.

Received from State Treasurer	1,000 00
Balance in Treasury September 30, 1883	1,000 00

Physiological Laboratory.

Received from State Treasurer	2,000 00

Disbursements.

Paid vouchers for current expenses	$72 94	
Balance in Treasury September 30, 1883	1,927 06	$2,000 00

Physical Laboratory.

Received from State Treasurer	1,500 00

Disbursements.

Paid vouchers for current expenses	$8 80	
Balance in Treasury September 30, 1883	1,491 20	1,500 00

Steam Heating.

Received from State Treasurer	4,000 00

Disbursements.

Paid vouchers for current expenses	$1,120 54	
Balance in Treasury September 30, 1883	2,879 46	4,000 00

RECAPITULATION.

Balances in Treasury September 30, 1883:		
Homœopathic Medical College	$3,356 82	
Homœopathic Hospital	1,145 25	
Library Building	732 22	
Eye and Ear Ward	17 55	
General Library	6,210 36	
Physiological Laboratory	1,927 06	
Physical Laboratory	1,491 20	
Mechanical Laboratory	2,409 78	
Steam Heating	2,879 46	
	$20,169 70	
Less overdrawn balances of Dental College	$320 83	
Less overdrawn balances of University Hosp'l	571 98	$892 81	19,276 89
General Fund Balance		26,050 69
Total in Treasury September 30, 1883		$45,327 58

Comparison of the Estimated and Actual Receipts and Disbursements for the Fiscal Year Ending September 30th, 1883, and Estimates for the year 1884.

RECEIPTS.

	Estimated.	Actual.	Increase.	Decrease.	Estimate of Receipts for 1883-4.
Balance Oct 1st, 1882	$28,118 75	$28,118 75			$45,327 58
State Treas'r Univ. Interest	38,000 00	*47,257 58	$9,257 58		30,000 00
" " 1-20 mill tax	40,500 00	40,500 00			40,500 00
" " Hom. Med. Coll.	8,000 00	10,200 00	†2,200 00		8,000 00
" " Libr'y Building	45,000 00	30,000 00		‡15,000 00	15,000 00
" " Dental Coll	8,000 00	4,500 00		3,500 00	6,000 00
" " Univ. Hosp	3,500 00	2,625 00		875 00	3,500 00
" " Hom. Hosp	2,000 00	1,500 00		500 00	2,000 00
" " Physiol'cal Lab.		2,000 00	†2,000 00		
" " Mechanical "		2,500 00	†2,500 00		1,000 00
" " Physical "		1,500 00	†1,500 00		1,500 00
" " Steam Heating		4,000 00	†4,000 00		4,000 00
" " Gen'l Library		7,500 00	†7,500 00		7,500 00
Sale of Dental Material	1,592 96	3,379 68	1,786 72		500 00
" " Anatomical "	500 00	533 15	33 15		500 00
" " Med'l (Univ. Hosp.)	340 00	364 04	22 04		340 00
" " " (Hom. ")	130 00	283 08	153 08		200 00
Interest on Deposits	250 00	576 26	326 26		250 00
Students' Fees. (Net.)	70,000 00	66,687 40		3,312 60	65,000 00
Miscellaneous		559 28	559 28		
Board of Dependent Children		406 27	406 27		
Loans		16,000 00	16,000 00		
Homœop Prof., Law of 1883					2,200 00
	245,931 71	270,988 49	48,244 38	23,187 60	233,317 58

* Five quarters.
† Special Legislative appropriation.
‡ Building not completed Sept. 30, 1883.

DISBURSEMENTS.

	Estimated.	Actual.	Increase.	Decrease.	Estimate of Expenses for 1883-4.
Salaries	$122,180 00	$125,509 99	$3,329 99		$131,000 00
CURRENT EXPENSES:					
Dental College	1,500 00	1,682 37	182 37		1,500 00
Hom. Medical College	1,500 00	967 35		$532 65	1,500 00
Univ. Hospital	4,000 00	2,604 35		1,395 65	2,700 00
Hom "	2,000 00	1,934 77		65 23	2,000 00
Library Building	54,473 95	38,741 83		15,732 12	15,732 12
Alterations and Repairs	3,000 00	3,334 39	334 39		3,000 00
Fuel and Lights	8,500 00	9,558 68	1,058 68		10,000 00
Grounds	500 00	302 08		197 92	500 00
Insurance	2,000 00	2,054 95	54 95		1,000 00
General Library, Books	500 00	2,381 79	1,881 79		12,710 36
Medical Library Books	300 00	434 98	134 98		500 00
Law " "	300 00	207 34		92 66	500 00
School of Polit'l Science	300 00	69 92		230 08	300 00
Annual Calendar, etc.	1,500 00			*1,500 00	3,000 00
Postage	800 00	853 37	53 37		850 00
Anatomical Material	2,800 00	2,926 23	126 23		3,000 00
Chem. Lab. Supplies	7,868 42	6,652 50		1,215 92	7,000 00

* Bill unpaid Sept. 30, 1883.

DISBURSEMENTS—CONTINUED.

		Estimated.	Actual.	Increase.	Decrease.	Estimate of Expenses for 1883-4.
Microscopical Dept.		$500 00	$222 66	.....	$277 34	$250 00
Mechanical Laboratory		500 00	416 90	.....	83 10	2,409 78
Observatory		1,000 00	488 49	.....	511 51	500 00
Engineering Dept.		500 00	314 71	.....	185 29	500 00
Department of Physics		500 00	129 12	.....	370 88	2,921 20
Physiological Dept.		1,242 85	767 53	.....	475 32	1 927 06
Museum		500 00	883 03	$383 03	.....	500 00
Steam Heating		169 80	1,670 02	1,501 22	.....	6,879 46
Advertising Med. Dept.		200 00	252 75	52 75	.....	200 00
" Law		200 00	5 00	.....	195 00	200 00
" Hom. Med. Coll.		200 00	79 50	.....	120 50	200 00
" Dental "		200 00	140 82	.....	59 18	200 00
" School of Phar'y		200 00	100 75	.....	99 25	200 00
Sundry expenses as follows:						
Adv. Lit. Dept.	$200 00					
Commencement	1,000 00					
Law "	150 00					
Diplomas	600 00					
Printing	900 00					
Water Lease	50 00					
Unpaid Contingent	903 69					
Contingent	3,000 00					
Moving Library	500 00					
	$7,303 69					
General Chemistry	$227 67					
Botanical Lab.	308 55					
Furniture	186 81					
Histology Lab.	69 62					
Eye and Ear Ward	70 85					
Contingent	5,340 28					
	$6,203 76	7,303 69	6,203 76	.....	1,099 93	
Contingent:						
Commencement	$1,000 00					
Law "	150 00					
Diplomas	600 00					
Printing	500 00					
Lease of Water Privilege	50 00					
Vouchers not presented	291 41					
Adv. Lit. Dept.	200 00					
Removal of Library and expenses incidental thereto	500 00					
Payment of Loan	4,000 00					
Contingent expenses	3,000 00					
	$10,291 41	.....	.....	.....	.....	10,291 41
Dependent Children		.....	434 84	434 84		
Construction		.....	845 14	845 14		
Loans		.....	12,000 00	12,000 00		
Purchase of Dental Material		.....	488 00	488 00		
Balance forwarded Sept. 30, 1884		.....	.....	.....	.....	9,346 09
		227,238 71	225,660 91	22,861 73	24,439 53	233,317 48

C.

TABLE

Showing the number of Students present in the various Courses at the time of the Examinations.

No. of Course.	SUBJECT.	No. of Students.	No of hours per week.
	I. THE CLASSICS.		
	I. GREEK		
I	Lysias; Athenian History: Goodwin's Moods and Tenses	48	4
II	Aristophanes (Wasps, and Peace)	8	3
III	Demosthenes (De Corona); Lectures on Greek Orators	35	4
V	Teachers' Course (Grammar)	9	1
VI	Homer (Odyssey)	45	3
VII	Sophocles (Antigone); Aristophanes (Clouds)	17	4
VIII	Lucian (Selections)	9	2
X	Teachers' Course (Anabasis, Prose Composition)	5	1
XIII	History of Greek Literature and Art. Lectures	47	1
XV	Masterpieces of Greek Tragedy	9	3
XVII	Lyric Anthology. Hellenic Orations of Demosthenes	3	2
XX	Sophocles (Electra); Aristophanes (Frogs)	19	4
XXIII	Hellenistic Greek. Selections from New Testament	9	2
XXIV	Plato (Apology and Phœdo) Lectures	7	2
XXV	Plutarch (Themistocles and Pericles)	15	2
	II. LATIN.		
I	Livy (Bk XXI); Grammar; Prose Composition	80	3
II	Quintilian (Bk X); Horace (Odes Bk I.); Roman Literature	69	4
IV	Classical Antiquities and Art. Lectures	23	2
V	Teachers' Course, (Æneid)	17	1
VI	Terence (Andria and Adelphi); Horace (Satires and Epistles)	74	4
VIII	Horace (Ars Poetica); Juvenal; Persius (Satire V.)	64	4
IX	Tacitus (Germania, and Agricola). Lectures	14	4
X	Cicero (Tusculan Disputations). Lectures	8	2
XI	Classical Antiquities and Art. Lectures	22	2
XII	Teachers' Course (Prose Composition, advanced work)	12	1
XV	Seneca (Tragedies). Lectures	6	3
XVII	Virgil (Eclogues); Martial (Selections)	14	2
XVIII	Catullus, Tibullus, Propertius, (Selections)	22	2
XIX	Cicero (Letters). Lectures and Recitations	19	2
XX	Pliny on Ancient Art (Natural History, Bks XXXIV, XXXVI). Lectures	2	2
	III. SANSKRIT.		
I	Elements of Sanskrit and Comparative Grammar; Stenzler's Elementar Buch der Sanskrit Sprache. Lectures	3	2
II	Continuation of Course I; First three books of the Nalopákhyánam, and a portion of the Hitopadeçá	1	2

TABLE.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students.	No. of hours per week.
	II. MATHEMATICS.		
I	Advanced Algebra	37	4
II	General Geometry and Calculus	30	4
III	Advanced General Geometry and Calculus	15	5
IV	Determinants	1	2
V	Advanced Geometry; Plane and Spherical Trigonometry	30	4
VI	Continuation of Course II	30	4
VIII	Calculus of Variations	5	3
X	Plane and Spherical Trignometry	91	2
XI	Analytical Mechanics	11	5
XII	Loci of Equations	93	1
XIII	General Geometry and Calculus	16	5
XIV	Advanced Algebra	75	2
XV	Geometry	74	2
XVI	Continuation of Course XIII	16	5
XVII	Mathematical Readings	1	5
	III. MODERN LANGUAGES AND LITERATURE.		
	I. FRENCH.		
I	Beginning French, Grammar and Reading	110	4
II	Idiomatic Analysis; Composition and Conversation	70	4
III	French Classics	43	3
IV	Romantic Dramas	37	2
V	Continuation of Course I. Modern Prose and Plays	91	4
VI	Boileau's Works; and Dramatic Readings	35	4
VI(IV)	Scientific Reading	7	4
VII	Montaigne's Essays	20	3
VIII	Masterpieces of the XIXth Century	12	3
IX	Teachers' Course	17	1
	II. GERMAN.		
I	Beginning German; Grammar	101	4
II	Gœthe's Torquato Tasso; German Lyrics	79	5
III	German Plays; Continuation of Course I	72	4
IV	Lessing's Laocoon	27	2
V	Selections in Prose from the Minor Classics	40	2
VI	Gœthe's Faust	50	3
VII	The Niebelungenlied	16	2
	III. SPANISH.		
I	Grammar; Readings	19	2
	IV. ENGLISH AND RHETORIC.		
I	Composition and Speeches	99	2
II	Rhetoric, Theory and Practice	23	2
IV	Anglo-Saxon	32	2
V	English Literature; Early Modern English	62	2
VI	do ; Study of Masterpieces	40	3
VII	Same as Course I	34	2
VIII	Same as Course II	64	2
IX	English Literature; Transitional English	21	2
X	do ; Modern English	54	2

TABLE.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students.	No. of hours per week.
XI	Study of Masterpieces	34	3
XIII	Grammatical and Critical Study of Selections in Prose and Poetry	15	2
XIV	The History of the English Drama	14	1
	V. HISTORY.		
I	General History of England from Henry VI to the Long Parliament	52	2
II	History of Civilization in the Middle Ages	49	2
IV	Seminary. Constitutional History of England	9	2
VII	General History of Continental Europe, from the Reformation to the French Revolution. Lectures	47	2
VIII	The Rise and Development of Prussia. Lectures	48	3
IX	General History of England from the Long Parliament to the close of the Napoleonic Wars	44	2
X	Constitutional History of the United States, to the Administration of President Jackson	39	2
XII	Seminary. Political and Constitutional History of the United States	23	2
XIV	Constitutional History of the United States	26	2
XV	Political History of the American Colonies. Lectures	58	1
XVI	The Elements of Constitutional Law	13	2
XVII	History of Political Institutions, from Solon to the Reformation. Lectures	37	3
XVIII	Seminary. History and Methods of Local Government	6	1
	VI. PHILOSOPHY.		
I	Psychology. Lectures and Recitations	55	4
II	Speculative Philosophy	20	5
III	Formal and Applied Logic	48	4
IV	History of the Leading Epochs in European Philosophy. Lectures	35	2
VI	Ethics, historical and theoretical. Lectures	16	2
VII	Seminary. The Science of Knowledge as developed in Aristotle, and in post-Kantian German Philosophy	4	2
VIII	Political Ethics. Lectures	16	1
IX	History of German Philosophy	20	2
	VII. THE SCIENCE AND ART OF TEACHING.		
I	Practical; Art of teaching and governing; Methods of instruction and general schoolroom practice, &c., &c.	24	4
II	Theoretical and Critical. Lectures	36	4
III	School Supervision, School management, Art of grading, and Arranging courses of study, &c., &c.	22	2
IV	Seminary. For the study and discussion of special topics in the history and philosophy of education	16	2
V	History of Education	4	2
	VIII. POLITICAL ECONOMY.		
I	Elementary Course. Lectures and Recitations	58	3
II	Advanced Political Economy. Lectures	27	2
III	Principles and Methods of Finance	33	2
IV	Financial Seminary	2	2

TABLE.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students.	No. of hours per week.
	IX. SANITARY AND SOCIAL SCIENCE.		
I	Sanitary Science. Lectures	21	2
II	Social Science. Lectures	61	2
	X. ADMINISTRATIVE AND INTERNATIONAL LAW.		
I	Lectures on International Law	31	2
II	History of Treaties	27	1
IV	The Government of Cities	45	2
V	Social and Political Rights	33	2
	XI. PHYSICAL SCIENCES.		
	I. PHYSICS.		
II	Experimental Lectures with Recitations	22	5
III	Physical Laboratory for beginners	6	3
IV	" "	3	5
VII	Theoretical Physics	1	2
X	Advanced Physics	24	5
XII	Laboratory work for advanced students	1	5
	II. GENERAL CHEMISTRY.		
II	Experimental and General Lectures	49	5
III	Kinetic Theory of Gases and Chemical Philosophy	2	2
IV	Laboratory Methods of Studying General Chemistry	4	3
V	Same Subject with addition of Exercises	7	5
	III. ANALYTICAL CHEMISTRY AND ORGANIC CHEMISTRY.		
I	Qualitative Analysis	15	10
II	Advanced Qualitative Analysis	5	4
III	Qualitative Analysis	28	5
IV	Organic Chemistry	4	5
V*a*	Quantitative Analysis	4	7
V*b*	" "	10	5
VIII	Physiological Chemistry	5	5
X	Blow Pipe Analysis	2	2
XI	Original Investigations	1	5
XII	Assaying Ores, dry way	12	2
XIV	Outlines of Chemical Technology	4	1
	IV. ASTRONOMY.		
II	General Astronomy	38	3
III	Spherical and Practical Astronomy	5	2
VIII	Elementary Practical Course	10	1
	XII. MINERALOGY AND GEOLOGY.		
	I. MINERALOGY.		
I	Short Course	10	2
II	Mineralogy and Lithology	6	5
	II. GEOLOGY.		
I	General Geology; Facts and Doctrines	72	2
II	Oral Exercises	50	1

TABLE.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students.	No. of hours per week.
III	Advanced Geology and Palæontology	3	2
V	General Geology; Part II. Theories	30	1
VI	Oral Exercises	28	1
VII	Palæontological Investigations	1	5
IX	Geology of the United States	1	2
	XIII. BIOLOGICAL SCIENCES.		
	I. ZOÖLOGY.		
I	Systematic Zoölogy	38	5
III	Comparative Anatomy and Physiology	31	5
IV	Identification and Special Study of Vertebrates	7	5
VII	Conchology	2	3
VIII	Advanced Work in Vertebrates	2	5
	II. BOTANY.		
II	Pharmaceutical Botany	14	5
III	Structural Botany and Microscopy	14	5
VI	Forestry	17	1
VII	Elements of Biology	7	5
IX	Systematic Botany	14	2
	III. HISTOLOGY AND MICROSCOPY.		
II	Laboratory Work	12	1
	XIV. DRAWING.		
I	Geometrical Drawing	26	2
II	Topographical Drawing, Lettering, &c., &c.	36	2
IV	Freehand Drawing; pen and ink	50	3
V	Descriptive Geometry	20	3
VI	Shades, Shadows, and Perspective	17	3
VII	Advanced Free-Hand	20	3
VIII	Architectural and Water-Color Drawing	2	2
	XV. SURVEYING.		
I	Use of the Transit and Level	11	3
II	Surveying with Compass; Solar Compass, etc., etc.	11	2
III	Higher Surveying; Plane Table, Sextant, etc.	8	5
IV	Field Work		4 w'ks
	XVI. ENGINEERING.		
	I. CIVIL ENGINEERING.		
I	Strength and Resistance of Materials	9	2
II	Theory of Construction	8	1
III	Graphical Analysis of Structures	8	2
IIIa	" " "	7	2
VIII	Theory of Construction	8	4
IX	Hydraulics; Water Supply; Sewerage	7	1
X	Stereotomy	11	2
	II. MECHANICAL ENGINEERING.		
I	Workshop Appliances and Processes	5	2

TABLE.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students.	No. of hours per week.
III	Mechanical Laboratory Work	9	2
IIIa	" " "	8	4
IV	Mechanism and Machine Drawing	1	2
V	Machinery; Machine Construction and Drawing	9	3
VI	Machinery and Prime Movers	8	3
VII	Machine Design	1	3
VIII	Thermodynamics	1	3
IX	Original Design, Estimates, etc., etc.	1	2
X	Naval Architecture	1	2
	XVII. METALLURGY.		
I	Fuel and Refractory Material, Iron, Steel, Copper, Zinc	3	3
II	Lead, Silver, Gold, Mercury, and other Metals	4	2
	XVIII. MUSIC.		
I	Science and Practice of Choral Music	18	2
II	Science of Harmony	2	2
III	Same as Course I	8	2
IV	" " II	1	4
V	Science and Practice of Choral Music; Staff Notations	6	2
VII	" " "	4	2
IX	Male Chorus 1st Semester	12	2
IX	" 2nd "	15	2
	XIX. BIBLIOGRAPHY.		
I	Historical, Material, and Intellectual Bibliography	30	1

P. R. DE PONT,
Secretary.

D.

TABLE

Showing the Text-Books used in the various Courses of Instruction.

I. THE CLASSICS.

I. GREEK.

Aristophanes's Wasps, and Peace.—*Green.*
" Clouds.—*Felton.*
" Frogs.—*Green.*
Demosthenes's De Corona.—*D'Ooge.*
" Hellenic Orations.—*Flagg.*
Euripides's Alcestes.—*Jerram.*
Æschylus's Prometheus.—*Woolsey.*
Homer's Odyssey.—*Merrey.*
Lucian.—*William.*
Lysias.—*Stevens.*
Moods and Tenses.—*Goodwin.*
Plato's Phœdo.—*Wagner.*
Plutarch's Lives.—*Holden.*
Sophocles's Antigone.—*Woolsey.*
" Electra.—*Jebb.*
" Philoctetes.—*Campbell.*

II. LATIN.

Catullus.—*Simpson.*
Cicero's Letters.—*Watson.*
" Tusculan Disputations.—*Trübner.*
Horace.—*Chase & Stewart.*
Juvenal.— do
Seneca.—*Trübner.*
Tacitus.—*Frieze.*
Tibullus.—*Crowell.*
Livy.—*Chase & Stewart.*
Martial.—*Stevenson.*
Propertius.—*Crowell.*
Persius.—*Chase & Stewart.*
Quintilian.—*Frieze.*
Terences Andria, and Adelphi.—*Chase and Stewart.*
Virgil's Æneid.—*Frieze.*

III. SANSKRIT.

Grammar.—*Stenzler.*
Readers: Nalopákhyánam.— } *Bühler's*
Hitopadeçá.— } *3d Book.*

II. MATHEMATICS.

Algebra.—*Olney.*
Geometry.—*Olney.*
Trigonometry.—*Olney.*
General Geometry and Calculus.—*Olney.*
Calculus.—*Courtenay.*
Determinants.—*Doster.*
Differential and Integral.—*Price.*
Analytical Mechanics.—*Winchen.*

III. MODERN LANGUAGES AND LITERATURE.

I. FRENCH.

Grammar.—*Duffet-Hennequin.*
Idiomatic Composition.—*Hennequin.*
Réading Lessons.—*Hennequin.*
French Verbs.—*Hennequin.*
Corneille's Le Cid.—*Hachette.*
Racine's Andromaque.—*Hachette.*
" Phedre.— "
Moliere's LeMisanthrope—"
Boileau's LeLutrin, and Les Satires.—*Delalain fres.*
Voltaire's Merope.—*Hachette.*
La Chauson du jardinier.—*Theuriet.*
Le Rayon Vert.—*Jules Verne.*
L'ami Fritz.—*Erkmann-Chatrian.*
Madame Therese.— "
Bug. Jargal.—*Victor Hugo.*

. GERMAN.

Grammar and Reader.—*Whitney.*
Gœthe—Tasso.
" —Faust.—*J. M. Hart, K. J. Schiver.*
Plays—Selections.—*Clarendon Press.*
Lessing's Laokoon.—*Clarendon Press.*
Minor Classics; Selections.—"
The Niebelungenlied.—*Zasucke.*

III. SPANISH.

Grammar.—*DeVere.*
Reader.—*Velasquez.*

IV. ENGLISH AND RHETORIC.

English Composition—"How to write clearly."—*Abbot.*
Rhetoric, Science of Rhetoric.—*Hill.*
Anglo Saxon, Reader.—*Sweet.*
English Literature:
Prologue and Knight's Tale of Chaucer.—*Morris.*
Manual of English Literature.—*Morley and Tyler.*
Handbook of English Authors.—*Underwood.*
Practical Elocution.—*Shoemaker.*

V. HISTORY.

English History.—*Greene.*
History of Civilization.—*Guizot.*
History of the United States.—*VonHolst.*
Elements of Constitutional Law.—*Cooley.*

VI. PHILOSOPHY.

Elements of Logic.—*Jevon.*
Handbook of Philosophy.—*Cocker.*
Psychology.—*Cocker.*

VII. THE SCIENCE AND ART OF TEACHING.

Lectures on Teaching.—*Fitch.*
Chapters on School Supervision.—*Payne.*
Outlines of Educational Doctrine.—*Payne.*

XI. PHYSICAL SCIENCES.

I. PHYSICS.

Physics.—*Everett's Deschanel.*
Atkinson's Ganot.
Elements of Physical Manipulation.—*Pickering.*

II. CHEMISTRY.

Chemistry.—*Everett's Deschanel.*
Introduction to Inorganic Chemistry.—*Miller.*
Chemical Experimentation.—*Sadler.*
Manual of Chemistry.—*Eliot Storer.*
Qualitative Chemical Analysis.—*Douglas and Prescott.*
Organic Chemistry.—*Pinner.*
Quantitative Chemical Analysis.—*Classen.*
Quantitative Chemical Analysis.—*Fresenius.*
Proximate Organic Analysis.—*Prescott.*
Determinative Mineralogy.—*Brush.*
Assaying.—*Richter.*
Volumetric Analysis.—*Sutton.*
Physiological Chemistry.—*Vaughn.*

III. ASTRONOMY.

Theoretical Astronomy.—*Watson.*

X. MINERALOGY AND GEOLOGY.

Syllabus with References.—*Winchell.*
Manual of Geology.—*Dana.*
Text Book of Mineralogy.—*Dana.*
Text Book of Geology.—*Lecomte.*

XI. BIOLOGICAL SCIENCES.

Key to N. A. Birds.—*Coues.*
Manual of Vertebrates.—*Jordan.*
Zoölogy.—*Packard.*
Introduction to the Study of Insects.—*Packard.*
Anatomy of Vertebrates.—*Owen.*
Skeleton and Teeth.—*Owen.*
Manual of Mollusca.—*Woodward.*
Botany.—*Bessay.*
Physiology and Microscopy.—*Stowell.*

XII. DRAWING.

Letter Book.—*Copley.*
Topography.—*Smith.*
Fortification and Stereotomy.—*Mahan.*
Descriptive Geometry.—*Church.*
Shades, Shadows, and Perspective.—*Warren.*

XIV. ENGINEERING.

Civil Engineering.—*Rankine.*
Graphics, I., II., III.—*Greene.*
Field Book for Engineers.—*Henck.*
Steam Engine.—*Rankine.*
Machinery and Mill Work.—*Rankine.*
Workshop Appliances.—*Shelley.*
Elements of Machine Design.—*Unwin.*
Naval Architecture.—*Thearles.*

XV. MUSIC.

Tonic Sol Fa Standard Course Exercises.
Fourth Music Reader of the Boston Public School System.

E.

REPORT OF THE DEAN OF THE SCHOOL OF POLITICAL SCIENCE.

To the Honorable Board of Regents:

GENTLEMEN.—As Dean of the School of Political Science, I beg leave to present the following report concerning the work of the school during its second year:

The courses of instruction given were the same as those offered in the last Annual Announcement. A grouping of the studies shows that there were twelve courses in History, seven courses in Social, Sanitary, and Educational Science, and six courses in Constitutional, Administrative, and International

Law. Of these courses the following were given in 1882–83 for the first time: The course in the History of American Finance, the course on Public Scientific Surveys, the course on the Economic Development of Mineral Resources, the course on the Historical Development of Educational Systems and Methods, the course on the Government of Cities, the course on the History of Modern Diplomacy, and the course on Methods of Local Government in Europe and America. The studies offered for the first time during the past year, as well as those previously provided for, were open not only to the registered members of the school, but also to all students of proper advancement in the Academic Department of the University. The classes were in all cases attended by encouraging numbers.

In the course of the year was also organized a society known as the "Political Science Association," with the design of drawing together into more intimate and sympathetic intercourse the teachers and students of the school, and of encouraging by mutual contact the spirit of scholarly and original research. Papers were presented by the President of the University, and by several of the professors and students of the school. Reports were given at each meeting of books on Political Science either recently published or recently procured for the University Library. In April the School and the University, as well as the public, had the advantage of two excellent lectures delivered before the association by Wm. F. Ford, Esq., the editor of Bradstreet's Journal in New York. The first lecture, "The History of a City Treasury," was a philosophical exposition of the difficulties that arose a few years since in the treasury of Philadelphia, and of their final adjustment. The second lecture, on "Municipal Government in the United States," was a discussion in similar spirit of the evils that have followed from unwise interference with municipal affairs by State legislatures. Mr. Ford's personal studies of the treasurer's accounts at Philadelphia gave peculiar interest and value to his opinions. Both of the lectures were received with much favor, not only by professors and students, but also by the public.

An interesting feature of the work of the year was the original investigation carried on by students in connection either with the association or with some one of the seminaries. In the prosecution of the studies referred to an effort was made to gain correct methods of independent investigation. So far as was practicable with the materials at hand reliance was placed on original sources alone. In this spirit several papers of a very creditable character were prepared. A study of "The Schools of Michigan during the Territorial Period," was founded chiefly on the newspapers of the time and on manuscripts kindly made accessible to the writer by their owners in Detroit and elsewhere. "A History of the Land Grants for Higher Education in the Northwest," was the result of an examination of the laws making the grants, and of all subsequent legislation in each of the States considered. The general study of this subject required not only considerable correspondence, but finally a personal inspection of documents in Lansing, Madison, Chicago, Columbus, and Indianapolis. A paper on "The Government of Chicago" necessitated a study of all the published reports, and also a personal examination in the city itself of the records of the auditor and comptroller. Also worthy of note were papers on the "Management of the Public Debt during the War of the Rebellion,' "Taxation during the War of the Rebellion," "The Powers of the General Government over Commerce," "Criminal Legislation in New England during the Colonial Period," "The Origin and Development of the Budget," and "The History of the Appointing Power of the

President." Besides these papers, all of which were prepared by applicants for higher degrees, several interesting studies from original sources were carried on by candidates for the degree of bachelor.

Of the students of the School who were examined at the end of the year for degrees, six took the degree of Master and one the degree of Bachelor. Three of those who received the Master's degree had not previously taken the degree of Bachelor. Of these, two were examined at the end of the fourth year, and one at the end of the fifth year of study in the University.

The work of the students of this School was carried on with some little difficulty, especially at the beginning of the year, by reason of the lack of proper authorities in the University Library. Many of the courses offered were on subjects that had never before been taught in the University, and consequently it is not strange that the Library was found to be inadequate to the new wants. But these necessities have been greatly relieved by individual benevolence. Report has already been made to your Honorable Board of a goodly sum of money furnished for the purchase of needed books on the easy condition that the name of the giver should not be made known. Besides about fifteen hundred volumes purchased with the money so furnished, and selected with especial reference to the wants of teachers and students carrying on investigations, we have received about a hundred and thirty volumes and more than a hundred pamphlets from other persons who have taken an especial interest in the welfare of the School. The University is indebted for valuable gifts to the School from the mayors of Boston, Brooklyn, New York, Buffalo, Cleveland, Detroit, Indianapolis, Chicago, and St. Louis. Especial acknowledgment should be made of the active interest in our collection of books on Municipal Government taken by Dr. Green, Librarian of the Massachusetts Historical Society; W. E. Lucas, Esq., Private Secretary of the Mayor of New York; Hon. Sherman Rogers, of Buffalo; L. B. Swift, Esq., of Indianapolis; J. Q. A. Fritchie, Esq., of St. Louis; Sidney G. Eastman, Esq., of Chicago; and A. D. Hager, Esq., Secretary of the Chicago Historical Society. An effort has also been made to collect complete sets of the Reports of Superintendents of Public Instruction in the adjacent States. Though our efforts in this direction have not been completely successful, yet valuable and cheerful assistance has been rendered by the Superintendents of Instruction in Ohio, Indiana, Illinois, and Wisconsin.

A general survey of the work of the year would seem to encourage the belief that the School is doing a useful service. Of the twenty students who enrolled themselves in the School at the beginning of last year, nearly all carried forward their studies with an enthusiasm that is deserving of the highest praise. But the influence of the work done is not to be measured simply by the successes of those enrolled in the School. It has been thought, wisely as I think, that the instruction should generally be open to all students of the University who have the requisite time and qualifications for the work. Large numbers of students avail themselves of these privileges. The School, therefore, offers the two-fold advantage of such instruction as will be helpful to the masses of the students, and such also as will be profitable to that smaller number who desire to attain the highest proficiency.

A recent article in one of the prominent Reviews of Germany, in discussing the study of Political Science in America, devoted several pages to the School in this University. Our courses of study were reprinted from the Announcement, and, although the general spirit of the article was commendatory, attention was called to what the author regarded a predominance of studies in

History. The implied criticism is probably not without justice. Before we can claim to have a perfectly symmetrical curriculum in the European sense, doubtless provision must be made for a number of new courses. It is highly desirable that instruction should be given in the Elements of the Science of Jurisprudence, in the History of Political Doctrines, and especially in Comparative Constitutional Law and Comparative Administrative Methods. One of the most important questions with which the rising generation will have to grapple is the Methods of our Administrative Service. But there is scarcely one of the European nations that has not had to contend with the same question, and that has not left a valuable experience either for our imitation or our warning. The work of no political school in America can justly claim to be complete until it has made provisions for bringing the methods and results of these experiences prominently before its students. It is probable, however, that these courses can be duly provided for, at no remote day, without any enlargement of the teaching force at present employed. But there is one need that cannot in this way be supplied. I refer to the desirability of instruction throughout the year in the subject of Political Economy. The engagement of Dr. Henry C. Adams terminates with the first semester, and consequently those students who are to come up for final examination in Political Economy at the end of the year are deprived of his instruction and guidance at the very time when they are most needed. However excellent the quality of instruction under the present arrangement, it is impossible either that all the instruction desirable should be given, or that students attain to the highest success in the courses actually provided for.

I regret to report that the adjustment of relations between the School of Political Science and the Academic Department of the University that was recommended by both the Faculties and approved by the Regents in May, 1882, has not completely removed all causes of embarrassment. Questions of jurisdiction in regard to the admission, direction, and examination of students were not defined with all the clearness that is desirable, and therefore some modification of rules now existing may be found necessary. It is not improbable that the subject will engage the early attention of the Faculty, and that the result of their deliberations in the course of the year will be submitted to the consideration of your Honorable Board.

Respectfully submitted,

C. K. ADAMS,
Dean.

F.

DEPARTMENT OF MEDICINE AND SURGERY.

The Faculty of the Medical Department is as follows:

James B. Angell, LL. D., President.

Alonzo B. Palmer, M. D., LL. D., Professor of Pathology and the Practice of Medicine, and Clinical Medicine.

Coryden L. Ford, M. D., LL. D., Professor of Anatomy.

Albert B. Prescott, M. D., Professor of Organic and Applied Chemistry and of Pharmacy.

George E. Frothingham, M. D., Professor of Materia Medica and Ophthalmic and Aural Surgery, and Clinical Ophthalmology.

Donald Maclean, M. D., Professor of Surgery, and Clinical Surgery.

Edward S. Dunster, M. D., Professor of Obstetrics and Diseases of Women and Children, and Clinical Gynæcology.

John W. Langley, M. D., Professor of General Chemistry.

Henry Sewall, B. S., Ph. D., Professor of Physiology.

William J. Herdman, Ph. B., M. D., Professor of Pathological Anatomy, and Demonstrator of Anatomy.

Victor C. Vaughan, Ph. D., M. D., Professor of Physiological and Pathological Chemistry, and Associate Professor of Materia Medica and Therapeutics.

Charles H. Stowell, M. D., Professor of Histology and Microscopy.

George A. Hendricks, M. D., Instructor in Anatomy, and Curator of the Medical Museum.

Osbourne F. Chadbourne, M. D., Assistant to the Professor of Pathology and the Practice of Medicine, and Clinical Medicine.

Charles M. Frye, M. D., Assistant to the Professor of Materia Medica and Ophthalmic and Aural Surgery, and Clinical Ophthalmology.

Lorin Hall, A. M., M. D., Assistant in Microscopy and General Histology.

James N. Martin, M. D., Assistant to the Professor of Surgery and Clinical Surgery.

Hugo Lupinski, Ph. C., M. D., Assistant Demonstrator of Anatomy.

Lena C. Leland, M. D., Assistant Demonstrator of Anatomy.

George F. Heath, M. D., Resident Physician and Surgeon in the University Hospital.

Examiners: E. P. Christian, M. D. William Parmenter, M. D.

A. B. Palmer, M. D., *Dean.*

Osbourne F. Chadbourne, M. D., *Secretary.*

The Course of instruction in this Department is presented in the following

OUTLINES OF STUDIES.

SUBJECTS.	No. of Courses required.	No. of Lectures in each Course.	No. Lect. necess'ry to be attended.	REMARKS.
Anatomy—Descriptive				
1st year	1	90	. .	Delivered in Anatomical Amphitheatre.
2d year	1	90	180	
Embryology Comparative	1	15	45	In Anatomical Amphitheatre, with Illustrations.
Anatomy—Practical	1	....	...	In which all the Anatomical Structures are to be worked out by each student, requiring from 10 to 12 weeks of afternoon work in the dissecting-rooms, besides class reviews by examinations.
Physiology	2	72	144	Didactic Lectures in Amphitheatre, with Illustrations.
Physiology	....	....	...	A special course of Practical Demonstration in Physiology is offered to the second year's class. (Optional.)
General Pathology	2	20	40	In General Lecture Room.
Histology with Practical use of the Microscope, Mounting, etc.	....	....	....	In sections in the Histological Laboratory Fifteen lessons of afternoon work.

OUTLINES OF STUDIES—*Continued.*

SUBJECTS.	No. of Courses required.	No. of Lectures in each Course.	No. Lect. necess'y to be attended.	REMARKS.
Pathological Anatomy	1	20	20	In Amphitheatre, with Illustrations.
General Chemistry	2	48	96	In General Lecture-room, with Illustrations
Qualitative Chemistry	1	....	....	Requiring twelve weeks of afternoon work in the Chemical Laboratory.
Analysis of Urine	1	....	....	Requiring twelve weeks of afternoon work in the Chemical Laboratory.
An extended Course in Analysis and Toxicology	....	....	....	Continuing through a college year in Laboratory. (Optional.)
Botany, Zoölogy, and Physics	....	....	....	Instruction given in the Department of Literature, Science, and the Arts. (Optional.)
Materia Medica and Therapeutics	2	60	120	In General Lecture-room.
Electro-Therapeutics	....	....	....	Twelve lessons—practice with Instruments in Laboratory. (Optional.)
Physical Diagnosis	2	16	32	In General Lecture-room, supplemented in the Hospital.
Obstetrics	2	60	120	In General Lecture-room.
Diseases of Women and Children	2	45	90	In General Lecture-room.
Clinical Gynæcology and Diseases of Children	1	72	72	In Hospital Amphitheatre.
Ophthalmology and Otology	1	24	24	In General Lecture-room.
Eye and Ear Clinic	1	72	72	In Hospital Amphitheatre.
Clinical Ophthalmology—at irregular hours	1	128	128	In Hospital with sections of the class. (Optional.)
Systematic Surgery	2	80	160	In General Lecture-room.
Clinical Surgery	1	72	72	In Hospital Amphitheatre.
Clinical Surgery, often shorter lessons	1	128	128	In Hospital Amphitheatre. (Optional.)
Practice of Medicine. (Systematic.)	2	90	180	In General Lecture-room.
Clinical Medicine	1	148	148	In Hospital Amphitheatre.

The text books and books of reference are as follows:

The books mentioned in the following list are standard authorities, and will form a good nucleus for a medical library. Any one of those mentioned in each department will answer the necessities of the student; and, wherever a preference exists, it is given to the one first in order on the list. The text-book of Prof. Palmer will be followed in the instruction on Pathology and Practice of Medicine, and in other departments reference will be made to text-books which students are expected to consult.

ANATOMY.—Gray, Wilson, Darling, Ford's Questions on Anatomy, Histology, and Physiology.

HISTOLOGY.—Stowell's Manual, Frey's Compendium, Stricker.

PHYSIOLOGY.—First year—Martin's Human Body, or Kirk's Handbook of Physiology. Second year—Foster's Text-book of Physiology.

CHEMISTRY.—*General Chemistry.*—Miller's Chemical Physics, Miller's Inorganic Chemistry, Elliot and Storer's Manual of Chemistry. *For Laboratory.*—

Prescott's First Book in Qualitative Chemistry, Vaughan's Physiological Chemistry, Rose on Poisons, Wormley on Poisons, Woodman and Tidy.

MATERIA MEDICA AND THERAPEUTICS.—H. C. Wood, Jr., Stillé, Waring, Ringer. *Special Subjects.*—Headland on the Action of Medicines, Anstie on Stimulants and Narcotics, National Dispensatory.

PATHOLOGY AND PATHOLOGICAL ANATOMY.—Green, Wagner, Paget, Williams's Principles. *For Reference.*—Rokitansky, Virchow.

OBSTETRICS.—Lusk, Playfair, Leishman, Byford. *For Reference.*—Schroeder, Cazeaux, Hodge. *Special Subjects.*—Tanner on Pregnancy, Barnes on Obstetric Operations, Elliott's Obstetric Clinic, Barker on Puerperal Diseases.

DISEASES OF WOMEN.—Thomas, Emmet, Goodele's Lessons in Gynæcology, Byford, Barnes. *Special Subjects.*—Tilt on Uterine Therapeutics, Klob on Pathological Anatomy of the Female Sexual Organs, Peaslee on Ovariotomy, Simms on Uterine Surgery, Emmet on Vesico-Vaginal Fistula, Skene on diseases of the Bladder and Urethra.

DISEASES OF CHILDREN.—J. L. Smith, Vogel, Tanner, Meigs and Pepper. *Special Subjects.*—Eustace Smith on the Wasting Diseases of Infancy and Childhood, Combe on the Management of Infancy, Routh on Infant Feeding, Holmes, or Guersant, on the Surgical Diseases of Children.

PRACTICE OF MEDICINE.—Palmer's Science and Practice of Medicine. *Special Subjects and for Reference.*—Williams on Consumption, Murchison on the Liver, Da Costa, or Finlayson, on Medical Diagnosis, Loomis on Physical Diagnosis, Reynold's System of Medicine, Ziemssen's Cyclopædia.

SURGERY.—Erichsen, Hamilton, Druitt. *Special Subjects.*—Billroth on Surgical Pathology, Hamilton on Fractures and Dislocations, Bumstead on Venereal Diseases, Ranney on Surgical Diagnosis, Sayre on Club Foot, Sir Henry Thompson, or Gouley, on Genito-Urinary Organs, C. Henri Leonard on Bandaging. *In Minor Surgery and Surgical Appliances.*—Bell, Le Gros Clark, Annandale, Wales, Sargent. *For Reference.*—Gross's System of Surgery, Agnew, Holmes's System of Surgery.

OPHTHALMOLOGY AND OTOLOGY.—*On the eye.*—Sœlberg Wells, Carter, Schweigger, Stellwag, Metz, Browne on the Ophthalmoscope. *On the ear.*—Roosa, Burnett's Treatise on the Ear, Mittendorf on Diseases of the Eye and Ear.

The student who begins a course of reading without an instructor, is recommended to devote the most of his time for the first year to the elementary branches, anatomy, physiology, and general and medical chemistry; and, advancing to other studies, to select one of the first-mentioned text-books in each department, passing to the "*Special Subjects*" only when near the completion of the course, or as he may desire for particular reasons to become more fully informed on them.

G.

COLLEGE OF DENTAL SURGERY.

The Faculty of the College of Dental Surgery is as follows:

James B. Angell, LL. D., President.

Jonathan Taft, M. D., D. D. S., Professor of the Principles and Practice of Operative Dentistry.

Corydon L. Ford, M. D., D. D. S., Professor of Anatomy and Physiology.
John A. Watling, D. D. S., Professor of Clinical Dentistry.
William H. Dorrance, D. D. S., Professor of Prosthetic Dentistry and Metallurgy.
U. D. Billmeyer, D. D. S., Demonstrator in Clinical Dentistry.
C. S. Case, D. D. S., Demonstrator in Prosthetic Dentistry.

In the arrangement of the course of study it is the aim to make it such as will meet the requirements of the student and the expectations of the profession, and secure the greatest benefit to the public. It is generally conceded that graded and progressive work promises the best results in education. The course embraces a range of subjects the mastery of which cannot, without great difficulty and at the risk of some superficial work, be accomplished in less than three terms; therefore to meet the requirements, the following schedule of subjects, making a three years' course, is presented and strongly recommended:

FIRST YEAR.—Anatomy, Physiology, Dissections, General Chemistry, Prosthetic Dentistry, Histology (in Histological Laboratory).

SECOND YEAR.—Review of the First Years' Studies; Clinical Dentistry, Theory and Practice of Dentistry, Pathology, Materia Medica, Analytical Chemistry, Metallurgy.

THIRD YEAR.—Theory and Practice of Dentistry, Clinical Dentistry, Pathology, Therapeutics, Oral Surgery, Diseases of Women and Children.

At the middle of the second year the student may be admitted to an examination on Anatomy, Physiology, General Chemistry, and Prosthetic Dentistry. Prior to this he must make two or more satisfactory practical dentures; he must also present for deposit a denture that shall be acceptable to the Faculty. At the end of the second year, an examination is held upon the principles of Pathology, Materia Medica, Histology, and Analytical Chemistry. During and at the end of the third year examinations are held upon all the branches not previously disposed of; and additional proofs of skill and ability may be required at the discretion of the Faculty.

For those who may find it necessary to complete their course in two years, the following schedule of studies has been prepared:

FIRST YEAR.—Anatomy, Physiology, Dissections (during the holidays), General Chemistry, Analytical Chemistry (at the end of the regular course), Theory and Practice of Dentistry, Prosthetic Dentistry, Principles of Surgery, Materia Medica. Histology (in Histological Laboratory), and Metallurgy, at the end of the regular course.

SECOND YEAR.—Anatomy, Physiology, Pathology, Theory and Practice of Dentistry, Clinical Dentistry, Oral Surgery, Therapeutics, Diseases of Women and Children.

At the end of the first year there is a preliminary examination upon Anatomy, Physiology, Analytical Chemistry, and Prosthetic Dentistry.

The lectures in the Department of Medicine and Surgery are given to dental students in connection with the regular classes in that Department. The facilities there offered for the satisfactory study of all branches common to general medicine and dentistry are full and complete. The advantages offered by a fully equipped medical college are of the first importance to the student of dental science, and attendance upon at least one entire course of medical lectures may properly be regarded as the true foundation for the study of dentistry.

The text-books used in this department are as follows:
Anatomy—*Gray.* Physiology—*Dalton, Foster.* Histology—*Frey, Beele.* Pathology—*Wagner.* Dental Pathology—*Wedl.* Oral Surgery—*Garretson.* Operative Dentistry—*Taft.* Metallurgy—*Essig.* Prosthetic Dentistry—*Richardson.* Oral Deformities—*Kingsley.* Chemistry—*Miller.* Practical Chemistry—*Prescott.* Therapeutics—*Biddle, Bartholow.* Medical Dictionary—*Thomas.* Dental Dictionary—*Harris.*

H.

SUMMARY OF STUDENTS.

DEPARTMENT OF LITERATURE, SCIENCE, AND THE ARTS.

Resident graduates	25	
Candidates for a degree	410	
Students not candidates for a degree	89	—524

DEPARTMENT OF MEDICINE AND SURGERY.

Resident graduates	2	
Third year students	120	
Second year students	120	
First year students	127	—369

DEPARTMENT OF LAW.

Seniors	158	
Juniors	175	—333

SCHOOL OF PHARMACY.

Resident graduates	2	
Second year students	41	
First year students	44	— 87

HOMŒOPATHIC MEDICAL COLLEGE.

Students—Total in the College	58

COLLEGE OF DENTAL SURGERY.

Students—Total in the College	69
6	1,440

Summary by States and by Departments.

STATE OR COUNTRY.	Departm't of Literature, Science, and the Arts.	Departm't of Medicine and Surgery.	Departm't of Law.	School of Pharmacy.	Homœopathic Medical College.	College of Dental Surgery.	Total.
Michigan	300	180	95	46	26	24	671
Illinois	62	16	38	2	2	9	129
Ohio	32	26	42	14	3	9	126
Indiana	36	14	31	4	2	3	90
New York	21	31	9	4	7	5	77
Pennsylvania	14	20	26	3	3	2	68
Iowa	14	6	11	2	5	.....	38
Wisconsin	5	6	7	3	2	9	32
Minnesota	4	7	14	1	.....	.....	26
Missouri	6	8	6	1	1	.....	22
Massachusetts	4	7	7	.....	.....	1	19
Kansas	3	4	4	1	.....	.....	12
California	4	2	1	.....	1	.....	8
Kentucky	2	1	4	1	.....	.....	8
Maine	.....	2	4	.....	2	.....	8
West Virginia	2	3	4	.....	.....	.....	9
Colorado	.....	1	4	.....	.....	.....	5
Connecticut	2	3	.....	.....	.....	.....	5
Dakota	.....	2	2	.....	.....	1	5
Maryland	.....	1	3	1	.....	.....	5
Nebraska	1	1	3	.....	.....	.....	5
Texas	2	.....	2	.....	.....	1	5
Utah	1	1	2	1	.....	.....	5
Arkansas	.....	1	1	2	.....	.....	4
Washington Territory	3	.....	.....	.....	1	.....	4
Delaware	.....	.....	2	.....	.....	.....	2
New Hampshire	.....	.....	1	.....	.....	1	2
Oregon	.....	2	.....	.....	.....	.....	2
Vermont	.....	.....	2	.....	.....	.....	2
Georgia	1	.....	.....	.....	.....	.....	1
Louisiana	1	.....	.....	.....	.....	.....	1
Montana	1	.....	.....	.....	.....	.....	1
Nevada	.....	.....	1	.....	.....	.....	1
New Jersey	.....	.....	.....	1	.....	.....	1
New Mexico	.....	.....	1	.....	.....	.....	1
Rhode Island	1	.....	.....	.....	.....	.....	1
Tennessee	.....	.....	1	.....	.....	.....	1
Virginia	.....	1	.....	.....	.....	.....	1
Ontario	1	20	4	.....	3	1	29
England	1	.....	.....	.....	.....	1	2
Ireland	.....	1	.....	.....	.....	.....	1
New Brunswick	.....	1	.....	.....	.....	.....	1
Nova Scotia	.....	1	.....	.....	.....	.....	1
Roumania	.....	.....	.....	.....	.....	1	1
Sandwich Islands	.....	.....	1	.....	.....	.....	1
Scotland	.....	.....	.....	.....	.....	1	1
Total	524	369	333	87	58	69	1440

I.

INVENTORY OF REAL ESTATE AND PERSONAL PROPERTY.

Real Estate.		
40 acres of land	$80,000 00	
University hall—north and south wings	110,000 00	
Law department building	25,000 00	
Homeopathic college and hospital buildings	13,000 00	
University hospital	16,000 00	
Medical college	30,000 00	
Chemical laboratory	30,000 00	
Dental college	12,000 00	
President's house	8,000 00	
Museum building	40,000 00	
Mechanical laboratory	5,000 00	
Carpenter shop	250 00	
Central boiler house	7,500 00	
Steam heating apparatus	50,000 00	
Water-works and plumbing	7,000 00	
Gas fixtures, pipes, and fittings	2,000 00	
Astronomical observatory	15,000 00	
Students' "	1,000 00	
Computing house	1,000 00	
Photograph "	150 00	
Professor's house attached to observatory	4,000 00	
4 acres of land	4,000 00	
New library building	100,000 00	
		$560,900 00
Personal Property.		
Contents of university hall	$11,529 00	
Contents of south wing	4,951 00	
Contents of north wing	4,500 00	
Contents of law building	3,182 00	
Contents of homeopathic college and hospital	1,916 00	
Contents of mechanical laboratory	3,500 00	
Contents of University hospital	3,200 00	
Contents of medical college	7,671 00	
Contents of medical museum	9,000 00	
Contents of chemical laboratory	7,500 00	
Contents of dental college	3,135 00	
Contents of astronomical observatory	12,000 00	
General museum	72,000 00	
General library	75,500 00	
Law library	32,500 00	
		$252,084 00
Total		$812,984 00

K.

PUBLIC EXERCISES ON THE COMPLETION OF THE LIBRARY BUILDING.

The completion of the Library Building was an event of so much importance in the history of the University that it was decided by the Regents to celebrate it in an appropriate manner. Accordingly, on the evening of December 12, 1883, in the presence of a large concourse of people, including invited guests from various parts of the State, exercises were held as follows:

Prayer was offered by the Right Reverend Bishop Samuel S. Harris, S. T. D.

The Choral Union then sang the chorus of Haydn, "The Heavens are Telling."

Regent James Shearer, Chairman of the Building Committee (which consisted of Regents Shearer, Walker, and Grosvenor) made the following report:

Report of Regent Shearer.

Mr. President.—It is well known with what earnest longings the wish was wont to be expressed, "that this great University might soon have a Library worthy of it, and a building that would safely keep and permit convenient use of the books therein."

The Committee on Buildings and Grounds cannot promise the books, but they have the great pleasure of offering to you a building worthy of a great library.

It may be instructive, and certainly will be interesting, to trace the initiation and progress of this work. First, of course, was the great need felt for a means of protecting and using a library. Second, an appropriation by the Legislature of the necessary funds. Third, the selection of a design that would combine convenience, capability for extension and safety from fire. Fourth, and of equal importance, a contractor, who would honestly, and with professional pride, execute the various works.

How nearly all of these necessary steps have been accomplished, will appear as we proceed.

As to the first step, much might be said, and many names be mentioned as earnest workers with the Board and Professors in giving form to this strongly felt need, but these names are too numerous for mention.

The first formal action taken by the Board of Regents was on September 8, 1880, by resolution offered by Regent Duffield, requesting the Library Committee, representing the several departments of the University, to prepare a memorial, setting forth the need of a library building.

This committee reported to the Board on January 12, 1881, and the Committee on Buildings and Grounds were then associated with them.

Secondly, The bill appropriating the amount required for a library building was introduced in the Legislature on the 25th day of February, 1881, and your committee have great pleasure in saying that the public sentiment of the State, as shown by the action of the representatives of the people, had been fully educated up to the great need of a library building. But not so as to the one hundred thousand dollars said to be necessary for its erection and completion.

The Legislative Committee, however, having heard the representations of Regents Grosvenor, Van Riper, and Walker, and of Professors Adams and Tyler, decided to visit the University, more fully to inform themselves as to

their just duties in the matter, and by the results of this visit it may be assumed that nearly all the members of the Legislative Committee returned fully impressed with the need of a library building, and of the wisdom of appropriating the entire amount asked for. The bill was passed in due time.

Third. As to the design for the building, Professor Chas. K. Adams (who had been active in the matter from its initiation), with consent of the two committees, procured a design from sketches for a library building made by Messrs. Ware & Van Brunt, of Boston, that had been used in presenting the case to the Legislature. But the Committee on Buildings and Grounds, to whom the matter of procuring a design had been referred by the Board of Regents, were obliged by the terms of the Act of Appropriation to advertise for competitive drawings. This was done on the 5th of April, 1881. The committee, among other requisites, instructed competing architects "that an ornate design was not required, but that convenience, good proportions, and good construction must govern, and that the whole must be as nearly fire-proof as the sum to be expended would allow." In response to this advertisement, three designs were offered on the 15th of June following, all of which possessed merit, but did not embrace the requirements of the committee as to the safety of the library and convenience of arrangement.

The design of Messrs. Ware & Van Brunt not coming within the terms of the advertisement for designs, was not considered by the committee, but, by order of the Board of Regents, was referred to them for their report.

After due consideration, the committee reported that the design made by Messrs. Ware & Van Brunt was much superior in convenience, construction, and adaptability to the others presented for their consideration, but that many minor changes were desirable before adoption.

The Board of Regents thereupon directed Regent Shearer to proceed to Boston and have such changes made in the drawings and specifications as seemed to him advisable. This duty was performed, and on the 22d of August, 1881, the design was in the hands of the committee, and was soon afterwards approved, as also the selection of Messrs. Van Brunt and Howe as Architects of the building, Mr. Howe having taken the place of Mr. Ware in that firm.

On the 25th of August the committee advertised for proposals for the erection and completion of the library building, and adjourned to meet on the 7th of September to consider any proposals then received.

On that day the committee met and found that James Appleyard, of Lansing, Michigan, was the lowest bidder, who was to furnish all labor and material required to build and complete the library building, as shown by the drawings and specifications, for the sum of $85,375.50. Some changes were made in this amount before signing the contract, and the recommendation of the committee to contract with Mr. Appleyard was adopted by the Board.

A contract was made providing for the completion of the building on or before the first day of October, 1882. Although the contract was not completed at the time fixed, compensating advantages are to be found for the loss of time.

On the 28th of September, 1881, ex-Regent Andrew Climie was appointed by the Board as superintendent of the building operations, and continued in charge until the completion of the works.

The Board of Regents on the 8th day of September, 1881, and exactly one year after their first formal action in this connection, by resolution directed

that the Committee on Buildings and Grounds, consisting of Regents Shearer, Walker, and Grosvenor, should act for them in all matters connected with the erection of the Library Building, and to take charge of all its processes of construction until otherwise ordered.

In accordance with these instructions from the Board, the Committee have taken full charge and have endeavored to carry out the spirit of the instructions of the Board of Regents.

But various retarding influences have been encountered. The spring of 1882 was very wet and unfavorable for brick making and other building operations, and, when the season of 1882 closed, instead of being completed, the building was not entirely under roof. But the contractor persevered, and about the first of January, 1883, this portion of the work was finished.

All the various operations of joiners' work, plastering and heating were retarded by the damp condition of the building, and the unusual quantity of rain in the spring and summer continued these conditions.

The wood-work could not be well done in a damp building. Good mechanics could not be had in sufficient numbers, and many other matters served to try the patience of contractor, superintendent, and your Committee.

But we have finally reached this day, and have great pleasure in offering for acceptance a convenient, safe, and exceedingly well built Library Building.

Notwithstanding the delay in completing the building, your Committee take pleasure in saying that in their opinion, the various works therein are so far superior to any heretofore done for the University, that the delay can well be overlooked.

The contractor has shown unusual care in the details of construction throughout, notwithstanding his low proposal for the contract, and is entitled to credit for his attention to these details, and his honest work.

Ex-Regent Climie, as superintendent, has been entirely faithful to his duties, and has rendered invaluable service, by his constant care and watchfulness of the several accounts connected with the appropriation, and his patient oversight of the works for such a building.

The statement of account with the appropriation for the Library Building, is as follows, viz.:

The University of Michigan, to the Appropriation, Dr.

To cash received from the State Treasurer	$100,000 00

Contra Account, Cr.

By Cash paid James Appleyard for contract and Extras	$89,187 32
" " for services of Architect and Estimating Experts	2,896 61
" " for preliminary and Prize Designs	850 00
" " Superintending expenses	2,673 00
" " Printing and Stationery	184 60
" " Furniture	1,547 13
" " Gas Fixtures	1,041 00
" " Connecting Mains for Sewer and Steam	418 20
" " Grading and Walks	455 25
" " Works not entirely finished, to cost	746 89
	$100,000 00

As has been shown, your Committee have confined the entire expenditures for the Library Building, to the amount appropriated by the Legislature for this purpose, but could have expended a larger sum to the advantage of the University.

And now in conclusion, Mr. President, the Committee on Buildings and Grounds have the great pleasure of handing to you, as the representative of the Board of Regents, this Report as a symbol of delivery and as a certificate of the completion of the duties of the Committee in connection with the construction of the Library Building.

JAMES SHEARER,
S. S. WALKER,
E. O. GROSVENOR,
Committee on Buildings and Grounds.

Ann Arbor, Michigan, December 12, 1883.

President Angell, speaking in behalf of the Regents, accepted the building.

ACCEPTANCE OF THE BUILDING BY PRESIDENT ANGELL.

MR. CHAIRMAN OF THE BUILDING COMMITTEE:—The Regents of the University have devolved on me the pleasant duty of accepting in their name from the hands of your Committee the completed Library Building. I should not worthily represent your colleagues upon the Board, if I did not express to you their hearty thanks to the Building Committee for the labor, the skill, and the judgment with which they have carried forward the erection of the substantial, commodious, and beautiful edifice, which is henceforth to be the permanent home for our library and gallery of fine arts. I am sure that our students and our Faculties, our alumni and all the friends of the University crave the privilege of joining in this expression of gratitude to the committee. In this glad hour we must also remember with grateful appreciation the architects who so wisely planned, and the builder who so honestly and solidly built our finest structure, and the Legislature and the State that so generously gave the large sum required for its erection.

The Library of the University is the fountain of its intellectual power. Here we all come, day by day, students and teachers, to kindle our feeble tapers afresh by the inextinguishable lamps with which the great scholars and thinkers of all time have illumined the world. Here in our quiet library halls the revered masters of science and philosophy and song condescend to sit with us as guides, inspirers, and friends. Here our University Senate roll expands until it adds them all to our corps of teachers. Oxford and Cambridge and Berlin and the Sorbonne thus come to dwell on our humble campus. The Academy and the Lyceum and the Porch which centuries ago crumbled into ruins on the banks of the Ilissus are rebuilded for us on the banks of the Huron. Plato and Tully and Virgil and Dante and Newton and Shakespeare and Moliere and Gœthe abide with us in the still air of delightful studies and admit us to their high companionship. At any hour the humblest of us may reverently but boldly draw nigh to those imperial minds and be borne aloft with them, as Milton would say, in the "spacious circuits of their musing." As we step within the building hallowed with their august presence, may we not feel that the place whereon we stand is holy ground, and that here, if anywhere, are found the oracles of earthly wisdom? Fitting, indeed, is it that the house which is dedicated to such high purposes should be the best that even the munificence of a great and enlightened and generous State can fur-

nish. Fitting too, it is, that with rejoicing and thankful hearts we should celebrate its completion with these becoming exercises.

Nor let us forget that this building is partly devoted to the service of Art, fair sister of Letters. It is suitable that here they should dwell together in one household in blessed companionship. So have they walked the earth together, each strengthening and inspiring the other in their gracious and benign work.

Now that this secure and commodious building is erected, it seems not unreasonable to hope that our Library and our Gallery of Art may both have a rapid growth. Those who might hesitate to deposit works of great value in a building not secure against fire, may be now ready to place them in our fireproof edifice. Thanks to the generosity of Philo Parsons, of James McMillan, of the State, and of other benefactors, our library has been more than doubled in size during the last ten years. But to meet the varied wants of a University like this it needs still to be much larger. Moreover, for the purposes of scholars throughout the State there should be in Michigan one great library where almost any subject can be thoroughly studied. I think all will agree that this is the most appropriate place for such a library. It is also very desirable that our collection of books be made large enough so that we can set apart at least twenty thousand volumes as a circulating library, from which our students may be permitted to take books to their rooms.

No more helpful gift could be made to the University than that of a fund for the regular and rapid increase of our library. We have constructed our book room so that it can accommodate more than twice as many volumes as we now have, and the building is so planned that an extension of that room can easily be made when needed. Eight years hence the University will celebrate the semi-centennial anniversary of her founding. May we not hope that as her sons and daughters come up here then to keep that high festival, they will be gladdened by finding that private or public generosity has compelled the Regents to consider the necessity of enlarging the book-room of the Library and the Art Gallery? I leave the question for you and all the friends of the University to consider in the intervening years.

The Librarian, Raymond C. Davis, then gave the following description of the growth of the Library:

The Growth of the Library.

There are three well defined periods in the history of the University. During the first of these, which began in 1817, and ended in 1821, it was known as the Catholepistemiad, or University of Michigania. During the second period, which began in 1821 and ended in 1827, it was known as the University of Michigan, and the act which created it, also located it in the City of Detroit. The third period, which began in 1837, is the period of to-day.

The chroniclers of the earlier periods have very little to say concerning books and libraries, and that little is contradictory.

The Rev. John Monteith, of Detroit, who was President of the Catholepistemiad, and held seven of its thirteen Didaxia or Professorships, wrote in his diary that in about a year from the passage of the act of incorporation a building was erected, "one story of which was occupied with a library."

In 1869, Mr. C. C. Trowbridge, of Detroit, sent out to the University a

parcel containing eleven volumes of miscellaneous books, and a letter to Mr. Ten Brook, the Librarian. In the letter he said:

"About half a century ago I had the honor to be chosen secretary of the Board of Trustees of the then existing University of Michigan, an office which I held for several years. During the time a few books fell into my hands as secretary, and, *as there was no library belonging to the institution*, they were marked and consigned to the dark corners of my house. In clearing out a closet they have been exhumed, and, although you may not deem them worthy a place in your catalogue, I send them to you."

The knowledge contained in these contradictory statements is all that we possess of books and libraries down to 1837, and the eleven volumes referred to are the sole bequest, of their kind, of the Catholepistemiad, and of the University of Michigan at Detroit, to their successor, the University of Michigan at Ann Arbor.

From 1837, however, information is both abundant and definite, and there are everywhere evidences that the transcendant importance of books in the equipment of an institution of higher learning was fully recognized.

The Legislature of the State in framing the organic law of the University in 1837 enacted that all moneys received for fees, except a sufficient sum to keep the buildings in repair, should be devoted to the increase of the library. If this law—which is still a law—had been operative, a library building would have been needed very long ago.

The first officer appointed by the first Board of Regents was a librarian, the Rev. Henry Colclazer.

One of the first purchases made was a copy of that now rare work, Audubon's Birds, for which the sum of $970.00 was paid. This was in February, 1838. At a meeting held the next month the Board, by resolution, instructed its secretary to buy a copy of Rafn's *Antiquitates Americanæ*.

While the Board itself was thus directly making occasional purchases, Dr. Asa Gray, who had been appointed Professor of Botany and Zoölogy, and was then abroad, was, as the agent of the Board, buying largely in the book markets of Europe. The acquisitions through him, numbering 3,700 volumes, drawn from all the departments of literature, were received in Ann Arbor, in December, 1840, and constitute the foundation of the library.

From 1840 to the accession of Dr. Tappan to the Chancellorship in 1852, there were no additions worthy of mention. One of the first acts of the new executive was to solicit aid for the library from the citizens of Ann Arbor. The response was prompt and generous and enabled the authorities of the University to add at once 1,200 volumes to the collection.

In 1856 the entire interior of the North Building, now the North wing of University Hall, was remodeled in order to accommodate the library and the museums. The arrangement included a reading room in which the books, now for the first time properly shelved, could be used daily. Heretofore, the librarianship had been little more than a name. It now became a position to which were attached arduous duties and grave responsibilities. Mr. John L. Tappan, son of Dr. Tappan, was the first incumbent after these changes, and may properly be called the first librarian of the University.

In 1863 the erection of the Law Building made it possible to provide better accommodations for the collection than it possessed where it then was, and it was accordingly removed to the lower floor of that building, where it remained until its transfer a few days ago to its new, and, we expect, permanent home.

In 1870 the library received its first important gift. This was the entire library (4,000 volumes and 6,000 pamphlets) of Carl Heinrich Rau, Professor of Political Economy in the University of Heidelberg. At his death it was offered for sale, and was bought and presented to the University by the Hon. Philo Parsons, of Detroit.

From 1856 to 1877 the average annual increase was about 800 volumes, and in June of the latter year the librarian reported the entire collection to consist of 23,909 volumes and 8,000 pamphlets.

I give the rate of increase to 1877 and the number of volumes in 1877, because that year was an epoch in the history of the library. Then began a series of special appropriations from the State for the purchase of books. Then began, also, a series of valuable gifts from individuals, culminating last year in the McMillan Shakespeare Library of 2,500 volumes, and the collection of great serial publications of 2,000 volumes, presented, through Prof. C. K. Adams, by some unknown person to the School of Political Science. Since 1877 the average annual increase has been about 3,000 volumes, and there are upon the shelves to-day 40,000 volumes.

This is, in brief, the story of the increase of the library in extent. Now, more briefly, the story of its increase in usefulness.

Until 1856 it was, the greater part of the time, a circulating library, open once a week for the delivery of books. The record of loans, which is still preserved, shows that quite a number of volumes were drawn; but it was not until the date named, when the books were shelved in connection with a reading room, that their greatest usefulness was developed. An extraordinary demand for them seemed to spring into existence, and this has never slackened, but has continually increased with the increase of the books and of facilities for their use. A card catalogue of the authors represented in the library, and of the subjects treated by them more than anything else, perhaps, promoted this increase. This catalogue was begun, and completed, as far as there were books, during the librarianship of Mr. Ten Brook.

In 1870, statistics of what we term the *recorded use* of the library were first prepared. By this recorded use—which is about two-thirds of the whole use—is meant the use made of the books by readers within the limits of the reading-room, and that made of them by the members of the Faculties at their homes. These statistics show that in the year 1870–71, 45,000 volumes were used; in 1876–77, 47,000 volumes, and in 1882–83, 95,000 volumes.

This completes the history of the library and brings me to the limit that was set for me; but I should be wanting in the instincts of a librarian if I let this occasion pass without one word of appeal, of solicitation, for a department of the University that is very dear to me, and that possesses for all an interest that no other one department can ever possess.

We need more books here to help the students answer the questions of his instructors, and, also, to help him answer those questions which no lips utter, and no fingers write, but which come thronging to him from within and without as the boundaries to his knowledge widen.

A great library, rich in all literature and in all science, is needed in this wide Northwest, to which the *litterateur* and the scientist may resort with a reasonable certainty of finding what they want.

This needs no argument, no amplification. The seats of great libraries in this country are few. Away to the east is Boston, with Cambridge hard by. This is *one*, and the best; New York is *two*; Philadelphia, *three*; Washing-

ton, *four*; and these are all, and they are all distant from us. Why may not Ann Arbor become *five*, and in one collection meet the wants of the students under tuition here, and of independent workers elsewhere whose convenience will be best served by coming here? Here is a nucleus. Here are secure accommodations. Here are guardians. Here are men fitted by nature and by training to guide the growth of such a library, and make it symmetrical. All that is needed is that the present liberality of the State shall be continued, and that instances of private munificence, like those I have named, shall be of frequent occurrence.

Shall it not be so?

It is a good thing for a man to do to provide the means whereby his fellow men may become wiser. The noblest thing in all human performance is to make men better. One way to make them better is to make them wiser.

The Choral Union then sang the "Hallelujah Chorus" of Handel.

Regent George Duffield, D. D., then read the Ode of Dedication, written by him for the occasion.

Ode of Dedication.

"*Bonarum Artium Rerumque Humanarum ac Divinarum Studiosos Convocamus.*"—Motto of Library Bell.

I.

Rapt into ages ancient,
I saw a sight sublime;
And longed for Dorian numbers,
To give accordant rhyme;
Too late for me I fear, Pindaric line,
Remembered youth alone (if Muse I have) is mine!

II.

A thousand trumpets sound,
A thousand doubling drums;
Lo! Fame appears, and leads the pageant on;
In long procession still, it comes and comes,
Farther than eye can reach, from sun to sun;
The great First-born of Earth, the Heirs of Time,—
Heaven's own Elect of every age and clime;
Her kings and priests, crowned and white mantled all;
The kings of thought, the priests of progress they,
The seers, the sages, mightiest in their day,
Who highest bore the torch in darkest thrall.
—Nor tongue, nor epoch narrows down the space,
The sons of genius live, for all the human race.

III.

A rare and choice procession, this I ween,
Nor once in Rome, nor yet in Corinth seen;
No golden eagles, gloating o'er their prey
In cruel triumph for a bloody day;
No Io Pæans sung, and choral hymn,
To horse or man as swift or strong of limb;
No festal thyrsus, as when Hermes' boy
Awakes the dithyrambs of mirth and joy.
Victors they are indeed!
But higher far their meed,
And nobler panegyrics find employ;
More like to psalms on Zion's holy hill,
When the long wandering ark at last stood still.

IV.

As a broad river seen
The mountain banks between,
Through stately theatre they seem to move;
On either side, walls crystalline and high,
Where to the topmost seat against the sky,
Are hands in loud applause and hearts of love,
And the proud flash of many an eager eye!
With clear celestial radiance, all their own,
Over each aureoled head what lustre shone!
So, when a child, once did I wondering see,
Sweet Iris' foot rest on a distant tree,
Giving its branches an excess of light,
Pure as unsullied snow, magnificently white.
—As by some new, mysterious birth,
Earth raised again to Heaven, or Heaven let down to earth.

V.

Those in advance, the faithful pickets they,
The rank and file, who helped to win the day.
The old Phœnician, as his rightful due,
Leads the long column where it comes in view;
And one papyrus, one a parchment bears,
That mocks the tooth of all-devouring years;
The third a style, the fourth an ink-horn good:
(The martyr's ink more precious than his blood),
Then high aloft on willing shoulders borne,
The centre of a circle far illumed,
Wherein is darkness doomed,
Refulgent beams THE PRESS, like rosy morn!
Gives wide her news to every wafting wind,
Conserves the lasting image of the mind,
And in the present shows the past enshrined.
We, the true Ancients! not the men of old,
Though tracing lineage back to Age of Gold.
O Love of Letters, Dear Humanities.
In youth and age,
The living page
Doth greatly please.
—Happy the State that knows the worth of mind,
And gives to all a birth-right so refined.

VI.

The Light brigade gone by
In triumph high,
The heavy corps appears
Mid loudest cheers.

The Poet first! nor needs he other name,
On the proud pillar of eternal fame;
Sole Monarch evermore of song sublime.
Exulting Greece begins
The sounding joy that wins
Its rapturous way down to remotest time.
O sightless Seer,
Without a peer,
Each in his own enchanted sphere
Gives praise sincere.
Dear vocal Memnon of the sunrise hour!
Till the last wave shall break upon the shore,
Thy fame shall still increase, from more to more;
To hold such place,
By long entail of grace,
Is thine alone! Thine only, claims like these,
Matchless, deep-browed, divine Mæonides.

VII.

In the long shadow of the parent sire,
All glowing with the same heroic fire,
See now reluctant come his first-born son;
Well worthy thou to wear the epic crown.
O modest shepherd of the Mantuan plain:
Playful and full of graee, whose tender strain
Is ever dear,
And starts the tear,
While any sense of youth doth still remain.
—Could I but read again one moving line
As once I read, no higher joy were mine.

VIII.

Of all who would with equal steps pursue
The radiant path of Latium's brightest name,
I but behold
The Tuscan bold,
"The central man" of men so tried and few!
Three worlds his theme, three-fold his well-earned fame.
The friend of Beatrice—of Maro he;
Disciple like he did his saints adore,
Which of the twain, 'twere hard to say he worshipped more.

IX.

Yet once again the Golden Lyre doth sound!
From Albion's coast afar,
I see his lustrous star,
Who sang of Paradise as Lost and Found;
His orb of song doth roll
Vast as his soul,
Unterrified, unbound.
With disentangled plume, against the wind,
A bird of Paradise
He highest flies,
And lost in hushed surprise,
Leaves all behind.
—In such a Momus age,
Of many a foolish rage,
Mighty Iconoclast! how blest another such to find.

X.

Now are the trumpets still!
The tuneful nine,
With melody divine,
Of wedded voice and verse,
In answering chords rehearse
His praise, who deepest drank their fount
On Heliconian Mount!
Hail! Nature's Darling! from whose generous store
So much she gave, she could not give him more!
The smitten walls resound from side to side
With love and pride.
The tragic three of old,
Who of Prometheus told,
Alcestis, and the dear Antigone,
Yielding their crown,
As all his own,
The loudest lead in jubilee.
—Nor yet unpleased the Swan of Avon hears
The thunderous cheers;
With knowing beck,
Arching his graceful neck,
He seeks the open main,
Sets his proud wings and skims the liquid plain.

XI.

These prime in order; yet in advent long,
Others keep equal step with sons of song!
Walking in converse high, as on the day
When Alma Mater sends her child away,
(Like bird from nest to try
Its wings and fly).
Earth's TEACHERS now I see, a noble band,
Of aspect grand,
Alike from classic and from sacred land.
Their calling high indeed,
What can exceed,
The Unknown Eros who discern and worth
Of those who feel within a soul,
And long to give it birth
And reach the goal?
—As wave at highest tide that breaks and pours,
And lashes white the loud resounding shores;
As sailor greets the Pharos far remote
That safe to heaven guides his foundering boat;
So bursts the welcome as these come in view;
So honor given to whom that honor due.

XII.

As in a city few the spires I ween,
In mountain range few pinnacles are seen,
So few their names immortal,
Who dare to ope the portal
Of wisdom seated in her highest fane!
Behold their forms august, each with his reverent train.

XIII.

See first the sage who dwelt Hymettus nigh,
Who never did the still small voice deny;
The man beloved, whom Athens dare not name
Save with the sorrow of eternal shame;
Himself who taught that he might teach her youth
The chaff of learning to divide from truth;
Of all her sons by every age confest
The wisest of her wise, the bravest of her best;
So near he walked to heaven while here below,
That when the cup was drained, he had not far to go.
—City of Cecrops, from that fatal day,
Thy doom was sealed that thou must pass away.

XIV.

He whose broad shoulders mark a broader mind,
His pupil is, imperial and refined,
His practiced ear,
The first to hear,
The hidden harmonies of soul,
That ever roll;
And truth and virtue blend, in sweet accord,
As from one Sovereign Lord
By all adored!
—O magic pen! O rare, mellifluous tongue,
That made Philosophy divine and ever young.

XV.

Worthy his Teacher, see the Master Mind,
Who threefold truth defined,
And dared explore
The realm of science to her utmost shore;
More learned none, and none more truly wise,
Whose hymn to virtue gives the highest prize!

Not he who did in after age confess
The Greek Academy in Roman dress;
Nor he whose key could open every door
To nature's feast and spread her amplest store;
Nor Albion's greater pride, whose patient zeal
Bade the far distant sky its laws reveal;
Not one nor all can boast a brighter crown,
More sure renown!

As doth an avalanche, thy glory still
Thunders amain,
With larger gain,
O mighty Stagyrite, and ever will!
O student true
Of old and new,
Of men untaught of God, the strongest thou,
From the beginning even until now!

XVI.

Nor are they all untaught! Lo! harp in hand,
With Zion's sacred band,
The Monarch Minstrel sings,
And smites the trembling strings,
In open view,
Dancing the while to his own music true:
"Lift up your heads ye gates.
Ye doors be lifted high;
The King of Glory waits,
His guards are nigh!"
The prophets three
With him agree,
And sing in fullest harmony—
"His guards are nigh,
Ye doors be lifted high!"

XVII.

As if the earth did quake, they instant pause,
Nor shout applause;
On either side
The ranks divide.
And turned upon itself, I note
In line remote,
Of these now passed
The last the first become, the first the last.

XVIII.

"Behold he cometh!" whom men love to call
"The coming One, the One Dear Head for all,"
As sung by plaintive bard in Latian plains,
And ever will be sung while song remains.
How shines the glory of His eye,
With inborn majesty;
Far as Himself is seen
Its holy sheen.
In silent awe, as is most meet,
All bow before Thy feet
Thou Man of name
Above all earthly fame!
Some kiss Thy garment's hem,
And some the sod
Thy feet have trod.
Jesus of Nazareth, the Christ of God.
Of kings the last, Thy kingdom ne'er to cease.
The true Melchizedek, the Prince of Peace,
In whom the ages meet
And are complete!

—LIGHT OF THE WORLD, what crown thy brow adorns?
Ah! do I see aright? a crown of THORNS?

XIX.

Nearest in mystic mind,
Close following I find
Him of the eagle soul
And larger scroll,
Whose words in purest hearts are deepest shrined!
And next again,
Him of the iron pen,
For whom his victim prayed nor prayed in vain,
—The champion he in Armageddon field,
Who finds no equal foe, nor thinks to yield!

XX.

On and still on with its new Head,
(For every thorn a crown,
And kingdom all his own,)
The glad procession moves,
With stronger tread;
Nor of the sages one who disapproves.

XXI.

Sudden I turn, and, lo! a Parthenon!
Lyceum, Porch, Academy, in one;
A temple fit for all who sit
At wisdom's feet,
And hers alone;
And hark! from lofty tower,
Melodious bells!
Like that which tells
The bridegroom and the bride
The holy hour,
When side by side,
Before God's altar high,
They seal their love,
Below, above,
To all eternity.

XXII.

Loud and still louder, alleluias rise,
And fill the earth, and reach the echoing skies;
The massive doors wide open fling,
To hail their king!
Who enters now with shining train,
Long to remain!
"PEACE TO THIS HOUSE," I hear Him say.
"Lover of wisdom, human and divine,
Let both be thine,
And peace alway!
Here find a home—
Come! Come! Come!"

XXIII.

—Just then I seem
For His dear sake
With joy to wake!
Nor was it *all* a dream.

Justin Winsor, Librarian of Harvard University, then delivered an address.

ADDRESS BY JUSTIN WINSOR.

I have no mission with you this evening, but to bear the congratulations of the oldest of our Universities to the most vigorous of the younger, on this auspicious occasion. I would like to have brought with me a fitting credential in the shape of a certain huge folio, but the burden of it was too great. Some of you may have seen it, for it is a precious heirloom with us, of Harvard—a copy of Downame's *Christian Warefare Against the Devil.* To look upon its title page brings back to us something of that theological atmosphere which surrounded those who founded a college in the New England wilderness nearly two hundred and fifty years ago. In the bold and vigorous copperplate engraving of the time we see on that title the plumed knight of the cross, clad in panoply from a worldly forge, holding at bay the imps of the evil one, brandishing their barbed tongues and bracing themselves on cloven hoofs. There is enough of the good orthodoxy of our Puritan fathers, compacted within the covers of that ponderous tome to turn a deluge of modern agnosticism. Why could this weighty volume be a good credential to bring to this festival of your library?

When John Harvard in 1638, hardly a year in the country, and but a few years after he had left those signatures at taking his bachelor's and master's degrees on the records of the University of the English Cambridge—the sole records of his existence, which the most filial curiosity has ever been able to find in the mother country,—and while feeling the insidious advance of that New England scourge, pulmonary consumption, made his will in the Massachusetts Charlestown, and left the half of an estate (to be classed among the largest possessed by his fellow colonists) to endow the college, then gathering on the banks of the Charles; he added to his benefaction his entire library of two hundred and sixty works; and so the college grew upon a foundation of books! When in 1764, while the provincial assembly of Massachusetts was occupying Harvard Hall, to escape a pestilential disease, which was raging in Boston, a neglected fire upon the hearth, more untameable than the sulphurous blazes of the theology about it, laid the building low, and destroyed the entire library, which was housed in the building, except about a hundred volumes, which chanced to be in the hands of borrowers, and among them was this massive volume, of which I have spoken, the sole survivor now of John Harvard's two hundred and sixty books.

When in 1638, the books of the "godly Harvard," as the records call him, were borne across Charlestown neck to the infant seminary at Cambridge, the problem was not yet solved, if an adventurous woodsman by going westward, and passing perhaps the very spot where we are now assembled, might not reach, footsore with continuous land travel, the Cathay of Marco Polo. Some imaginative geographers had indeed for a long time severed the continents of Asia and America by the Straits of Anian, but there was a long lifetime yet to pass before Behring, without knowing it, sailed from the Pacific to the Arctic seas. Poor was the comprehension then of your Michigan peninsula to the young eyes, which saw a wealth of learning in the heap of books stacked so portentously in the rude study of Nathaniel Eaton, the master of the incipient college. As we read the list of those two hundred and sixty books, we may well ask ourselves, what would Aquinas, and Beza, Chrysostom, and Calvin, and Duns Scotus, Luther, and Pelagius, have told

them of the country of the Ottawas and Miamis? Would Minsheu's *Guide to the Tongues*, to quote another of the titles, have recognized the linguistics of Aboriginal America? Would Bacon's *Advancement of Learning* (for that too was there) have solved the problem of the Mound-builders? Would Homer have told the battles of the Iroquois and the Eries? Would the gallery of Plutarch have shown to them the heroism of Nicolet and Champlain, tracking your neighboring waters? Would Horace have voiced the chants of the Hurons?

There was but one book among them which might be expected to tell them anything of this region, and that was an early edition of Peter Heylyn's *Cosmographia*, but to Heylyn the basin of the great lakes was an area which he might have well filled on his maps with elephants and parrots, to say nothing of a throne for the great Cham of Tartary. The colonists of New England in 1638 knew absolutely nothing of this valley of the lakes and the adjacent water-shed of the Gulf of Mexico. Even the French of Canada, with their better knowledge, could only surmise that your territory was on the line of that passage to India, of which Lachine, or the New China, was but the first stage of the westward progress. And so, ignorance of some things and pretence of others found its place in the books of the new college. Ignorance and pretence often lurk very near to our strongholds of knowledge, to-day. There is a good story told of one of Harvard's most distinguished presidents. Edward Everett was expected to respond to a toast in praise of classical learning at a dinner of the Phi Beta Kappa society. As he was going to the dinner, he turned to his shelves to select a small edition of Homer to put in his pocket. There chanced by some strange juxtaposition to stand side by side, a convenient Homer and another book of equal size. By mistake he took the other. He approached the climax in his speech. He pictured the all prevading intuition of Homer. He told the old stories of valor and tenderness. He drew from his pocket the captive missionary, and holding it aloft with that tremor of the hand which we all remember, he said: "Within the covers of this book," and then went on to epitomize the experience and wisdom of Homer. As he laid his text beside his plate, while the table rang with the applause at the completed apostrophe, an inquisitive neighbor took it up, and found it to be *Hoyle's Games*. So pretence in some form or other, wittingly or unwittingly, enters the citadels of the humanities.

And what are these citadels, the best of them, compared with what they might be? Rather than answer my question by the palpabilities which you anticipate, let me, by a few venturesome statistics, reply to a question which is often put to me, as I have no doubt it is put to your librarian: What is the use of so many books? Who reads them? Why not sift them and burn the trash? If there was wisdom in this inquiry, neither you nor we would have to build new libraries.

With very rare exceptions not a book has been published since the invention of printing without its use in some way. The next best thing to finding a book helpful is to satisfy yourself it is not helpful; but that may not by any means imply that it is of no value to another. Inanities indeed are a constituent part of psychological study. We have the inanities of our own day about us in walking figures; but the inanities of the days of Elizabeth are only preserved for our social studies in books, as those of Victoria and Arthur will be preserved to future times. When the Roman said: *Homo sum, humani nihil a me alienum puto*, he did not mean that his study was of his *wise* brothers only. Folly and inanity are not without their lessons. To

us who are on a height, the groping progress, the slippery climbing, that generations before us have gone through, are not to be discarded in the study of humanity, or of the humanities. Such is my plea for what some are fain to call worthless books. No one so well as a librarian, who is alive in every direction to the wants of everybody, knows the importance of most, which is covered by a term, so flippantly used by a narrow experience—*trash*.

Nothing is more true than that comparatively few books add much to our store of knowledge. Most books are indeed a digest, made with more or less skill of other books or of parts of many books; but they go to make up the class of useful as distinct from original books, and they have a certain adaptability in one direction or another, which is the excuse for their being. Furthermore a book may have a curious psychological interest, independent of any addition to knowledge, which it may convey, as representing a type of mind, local peculiarities, or race-structure, which as one of a mass becomes of some importance in the study of mind. It is always dangerous to say a book is of no value. There is no truism—as I think—which a librarian is oftener called upon to assert and to illustrate, than that it is impossible to say what current ephemeral publication may not become of cardinal interest. I can well understand how a specialist looks with something of disgust upon the labor of the librarian, which tickets away the ephemera of a study foreign to his own. He is, however, quick to see the possible value of the dingy chap-books of his own study.

I am sometimes, from my observations, forced to a conviction of the narrowing influence of special studies in that they are apt to use the wrong end of the telescope in viewing other attainments. It is no small part of a librarian's duty to make a counter force in such cases and to defend on general principles all sorts of studies. Is it not too often the fault of restricted studies which makes us a cyclops with one eye, until we lose the relief of a background? It is two eyes which give sphericity to the disk. It is foil and counter-foil in study which makes the object of it seem palpable and graspable. Coleridge once said that the principle of Gothic architecture is infinity made imaginable. In the same way we may say that a widened sympathy in intellectual studies makes the vastness of knowledge comprehensible.

The most costly nuggets of English libraries to-day are the little six-penny play-books of Elizabeth's time whose countless thousands perished with the reading and whose survivors are the chance waifs, which have run the gauntlet of all sorts of vicissitudes. The purifiers and collators of our English texts have taught us their value. Perhaps no one more than Macaulay has made manifest the wealth of historic illustrations existing in the ephemera of all ages. Mr. Edward Edwards, the chief English authority on library history and economy, has said that the trash of one generation becomes the highly prized treasure of another. It is to-day the rule of the Bodleian, the British Museum, and the other great libraries of Europe to reject nothing, having long ago learned the folly of discrimination, and I am glad to say that our chief American libraries follow the same rule.

Counting by volumes, not by works, it may be safe to assume that in the last four hundred and fifty years, there have been put upon the world an aggregate of not far from 10,000,000 books—trash included; and of these scarcely more than a fifth part can be found in any one library; and probably very much less than all can be found combined in the great libraries of the world to which scholars resort. Nor can we reasonably suppose that the world was ever better able to compass all knowledge, through books, than

now. We read of the enormous extent of a few ancient libraries; but careful computation does not put the amount of matter in the largest of them above the equivalent of a modern library of 100,000 volumes, and of this size there are at present not far from a hundred in the civilized world; and the great collections of London, Paris, and St. Petersburg would each swallow up near a score of these ancient collections. When the Harvard library was burned a hundred and twenty years ago, it was the largest by far in America, and it contained scarcely more than 5,000 volumes; and not a library in Europe possessed over 200,000. Nothing, perhaps, presents our relative growth as an intellectual factor in civilization better than the fact that our chief American library of a century ago contained about a fortieth of the resources belonging to the largest of the European libraries, while we have two or three to-day which are from a fifth to a quarter as large as the greatest of those in Europe. Even within this century the Vatican, Bodleian, and British Museum have been loosely held to contain every printed book. It is doubtful if the Vatican has to-day more printed books than, for instance, the Boston Athenæum, a library of the second class with us; and the Bodleian more than the Library of Congress. We have several larger libraries in the United States than exist in Italy to-day.

The 10,000,000 volumes constituting first and last the world's stock of books since the invention of printing with an average edition of 300—which I think is low—will give an aggregate of 3,000 millions of volumes, which the press has produced during four and a half centuries, and of these 3,000 millions, I doubt if there are in the United States in public or semi-public libraries, where scholars might supplement their own private collections fifteen millions of volumes, or say, one-half of one per cent. of the grand total,—a striking estimate of the inadequacy of public collections of all sorts, to preserve a world's literature, for I take it, we account ourselves much better, as a nation, than a half of one per cent. in relation to the mass of the world's communities.

In the fifty or sixty years which followed the first work of the press, and within the fifteenth century it is usually reckoned there were at least 16,000 volumes printed at all of the presses of the forty-two cities which are known to have had printing offices. It is not an unfair estimate to place the average edition of those days at 500 copies, and this would give a round eight million of incunabula—cradle books,—of which the number which have come down to us is comparatively small. Of this 8,000,000 I doubt if there are more than a very few thousand on this continent. I do not regard the possible excess of some of the libraries of Spanish America, when I say the largest number which I know in this part of the world, is the four or five hundred which belong to the Union Theological Seminary, of New York.

Now what are the relations of a single American Scholar to this vast aggregate of ten million of books, who in pursuing any subject to its final conclusion, would not, if he has the scholar's longing instincts, let any book go unquestioned which might give him knowledge or prove the absence of knowledge.

It was DeQuincy's computation, that a man the most favorably situated, and reaching old age, could hardly hope to *master* more than from five to eight thousand books. A person having to do with many books rarely masters them, if by that term it is meant, he reads them. Such a person by practice acquires great foraging skill. He reads first, perhaps, the most neglected part of the book, its preface. From that and the table of contents he has more

than half won the battle in getting the author's purpose and divisionary methods. He skims the pages, reads at length such passages as appear salient, scans the foot-notes to discover his use of authorities; runs over his appendixes to see what he leaves over. I have known such a professional reader to run over two or three thick octavos of an evening; and to assimilate enough to serve him and those who made inquiries of him, from 1,500 volumes in a year, besides giving hasty inspection of thousands more. The literary luxury of such a man was the slow devourment, once a year, word for word, of a famed novel.

Of course few books survive in interest from century to century; but the scholar's range is beyond the perennial books. Three-quarters of the books published may be forgotten in the year, and not one in a hundred survive twenty years. It has been estimated that of the 50,000 books published in the 17th century not one in a thousand is worth reprinting—which is not by any means an equivalent term to re-reading—and of the 80,000 produced in the last century, scarce 500 are known to the general run of educated people.

It is a significant fact that not a single library in the world is perfect enough to satisfy any considerable number of different specialists. I have had to do with some of the best general libraries in this country, and yet I never attempted an exhaustive investigation of a single subject, that I did not find myself at a loss both for the books which have been, and for the books which have not been written. This is the fact to be thrust in the face of those who are always demanding the thinning out of our libraries. We generally agree that a man cannot better broaden himself than by seeking contact with his fellows, and he would be far from wise, who did not sometimes seek his inferiors as well as his betters. Yet books are but people, *usually at their best*, people of many ages and from various parts. The good folk who sneer at the profusion of books, seldom sneer at the still greater profusion of men!

I once asked the late Winter Jones, when he was the principal librarian of the best working library in the world, that of the British Museum, "How often does it happen that a special student, seeking the utmost recesses of his subject, can find all he desires in your vast collection?" His answer was, "Not one such investigator in ten is satisfied." "Because you haven't the books he needs?" I asked. "Yes, partly for that reason," he replied, "but still, in good part, because the books he wishes do not exist. When you have been a librarian as long as I have," he added, "you will be convinced of the exceedingly small margin of the bounds of knowledge as yet covered by printed books."

We may well be startled at such a confession from a librarian, whose life had brought him in contact with three generations of scholars of the old world, of all nationalities, coming to explore the great national library of England.

One-fifth part of the books that have been published will not satisfy one scholar in ten, and that dissatisfaction is equally great on account of the books which have not been published! Do you wonder that the city of Boston is talking of a library building that will hold prospectively ten millions of volumes? If our material longings are not to be satisfied till we annihilate space and abolish night, is the scholarly longing to be ignored, and are we to be long content with a scant twenty per cent of possibilities? Let us leave the problem to our successors, and from the empyrean a century hence let us wonder at *our* days of small things!

With libraries in most ways too narrow and confined for exhaustive research, we in America are forced in every direction to take matters at second hand, not to speak of much that we miss altogether. Scholarship, so far as it is recondite and based on verification, is still, I fear, in most cases beyond our reach. The most important books we doubtless have, not in every library, though in the combination of our principal ones; but the test of thorough scholarship is the proof that the minutest details have not escaped notice; and to this, can we only in a few subjects lay claim.

Our advances in the equipment of our libraries have been great within the last thirty years, but no one who undertakes to verify the references in any great book of European scholarship, but becomes aware of the vastly better advantages, especially in other languages than English, which he has in some of the great bibliographical centers of Europe. John Quincy Adams thought, fifty years ago, that it was not to our credit that nowhere in the United States could Gibbon be tracked through his course by the verification of his footnotes. I doubt if it can be done to-day.

While this condition may be a cause of regret, it is no cause for reproach. Libraries like those of London, Paris, and St. Petersburg, are not the creation of a lifetime, and it is hardly more than that since we in this country set seriously to work to amass large collections of books. Thomas Watt said twenty years ago, that it was only a question of time when a scholar would have to visit the great libraries of America as well as of Europe to be sure of completely hunting down the authorities. Within a year I have known a Spanish scholar, who is exhausting all resources for a history of Columbus, to find it important, after Madrid and Genoa, Paris and London had been explored, to cross the ocean to see what our libraries and eager collectors had carried off as prizes from the dealers of Europe.

It is nearly thirty years since in a Paris auction room I looked on one of the bouts, which Dibdin likes to describe, when the coveted object was the oldest cartographical monument of American history, and the combatants were well-known representatives of the crown of Spain, the Bibliothéque Imperiale of Paris and a private American collector. The prize hung before the assembly. It was an ox hide on which was depicted the known world, showing at one extremity all that had been discovered of the new found islands, as they were supposed to be, lying about Japan. The chart bore the name of its maker, one of the pilots of Columbus, and the date of 1500. The bidding was spirited, and a certain young American, who was in the room, recognized the coming glory of American libraries, when his country's champion pressed hard upon his rivals, even though his courage failed him, when the agent of Queen Isabella swept the field at four thousand two hundred francs.

That America has struggled well to equip her scholars is only too apparent in the enhancement of the commercial value of old books, which has gone on under American competition in the book-marts of London, Paris, and Leipsig. It is not unfair to say that our own eagerness has at least doubled the antiquarian prices, in most cases, and much more in some. European libraries and collectors recognize this and regard it jealously. In one department, that of early Americana, the increase in prices has been enormous, and is still going on extravagantly under the false competition, introduced in the methods, which have been employed to the general detriment of letters in the selling of the Brinley and Cooke collections.

When the American, Obadiah Rich, set up in London as a bookseller fifty or sixty years ago, he printed catalogues which showed prices a fifth or a sixth

part of the sum necessary now to secure the same books. And this scale of increase rules in every department of learning, and if not always to the same degree, certainly to a considerable degree. It has thus become a serious financial problem for American libraries to make themselves great. Fortunately, money comes easier now to them than it did fifty years ago.

Bibliography is growing, and it is essential that it should be so, a far less special attainment than it used to be. It is, in fact, a study fast becoming necessary to every scholar, who, without it, may be lost in a wilderness of books. It may be an instance of the subduing of my nature to what it works in, like the dyer's hand, but I never read the touching recital in Evangeline of the rushing by, unobserved, of Gabriel's boat, while the maiden lay screened by the palmettos, without likening the trapper of the Atchafalaya to the uncircumspect student, who never knows how near he is passing to the object of his study. It is the aim of bibliography, as it is now understood among us, to prevent just these misfortunes, and the great agency in this revolution is the subject-catalogue. It is a matter of congratulation to us as Americans, that the potentiality of the subject-catalogue is a power of our own creation; and we have developed it despite the disregard, not to say disapproval of the older world, which is now, however, beginning to show unmistakable signs of their error.

There are potent reasons for the lead in this direction taken by American librarians. Our libraries are comparatively young and small. We are not hampered with traditions come down from a period when monks were the only scholars, and monasteries the only libraries. We did not so much *possess* as we were trying to *make* a race of scholars. We were making them of everybody. We paid little regard to prescriptive rights of birth or advantage. We could not tell where our encourgement would bear fruit, and so we worked as if everybody needed help and would take it.

There is no factor in the efficiency of a library equal to the catalogue. It used to be the librarian. Van den Weyer in 1849, in his remarks before the Royal Commission at the British Museum, when some librarians were raising all sorts of excuses against the preparation of even authors' catalogues, met them very squarely when he told them that the librarians who undervalued catalogues were aiming to make themselves personally indispensable. It was a telling blow at the traditional librarian, and it was the truth. The race is not yet dead; and I could name one or two in this country.

With much that is discouraging progress is making, and librarians have no need to be disappointed in the growing sympathy with their requirements, which the last few years have shown. The work of the librarian is only now sharing the perplexities which all sciences experience in that transition stage when they are passing from the purlieus of pretence to the recognized status of a department of knowledge. Botany was once but the province of "all simples that have virtue under the moon." Genesis was once the text-book of geology. A similar crassness of ignorance has surrounded and still in some degree surrounds the science of *bibliothetics*, if I may be allowed the word. Dr. Johnson found lexicography in much the same disrepute, when common notion placed it, as he says, like "a task, that requires neither the light of learning nor the activity of genius; but may be successfully performed without any higher quality than that of bearing burdens with dull patience, and beating the track of the alphabet with sluggish resolution."

The modern library movement, which is beginning to disabuse the common mind of similar estimates, owes probably more than to any one else, the

first development which took it from its plane of empiricism up to the level of science, to the indomitable will, the clear perceptions, and the great learning of an Italian outcast, who by his sheer competency, reached the chief position in the best working library in the world. The names of Antonio Panizzi and the British Museum are inseparably linked. He had not only a hostile public to confront, but he had to overcome his own official superiors, the trustees of the museum, and he did it. Parliamentary commissions and royal commissions started up, urged by petitions of men, who looked to the library to supply some deficiency in their own mental organism; but Panizzi's manly and honest fight evinced a potency that in the end not only forced all opposition to succumb, but also all that was generous in it to acknowledge him a victor.

It will be dry reading doubtless to most, despite the piquancy of some of the cross examinations, but the Blue Books which contain the reports of those royal commissions of 1835 and 1848 on the British Museum must always be resorted to in the study of library economy. I read them when I was in college, and they did much to prepare me for the life of librarian, when fortuitous circumstances placed me, without any gradation of ascent, at the head of a large library. I have read every word of those ponderous folios more than once since,—always with an increasing admiration of the courageous mental power lodged in the rugged physical form of that Italian refugee. There is no name of so potent a spell on an occasion like this, or one I would so like to leave last in your ears, as that of ANTONIO PANIZZI.

The Choral Union sang a choral from Mendelssohn's St. Paul.

The Benediction was pronounced by Bishop Harris.

At the close of the above exercises the invited guests visited the Library and the Art Gallery.

DESCRIPTION OF THE LIBRARY BUILDING.

The library building of the University of Michigan is the latest, and on account of its style and proportions, the most attractive architectural feature on the University grounds. Situated a little to the south of the geometric center of the campus, it is, as its purpose requires, easily accessible from the buildings of all Departments.

In the absence of decorative enrichment, its claim to artistic merit rests upon its symmetrical and striking outlines, evident honesty, and entire adaptability to its purpose.

As approached from the main walk, its most striking features are the semicircular projection to the north, with its pyramidal roof and rows of windows, flanked on the east and west by towers one hundred and ten feet in height, in the western one of which hangs the peal of five bells, so generously given to the University.

The building is lighted throughout by gas, and is heated by steam, furnished from the central boiler house through about three hundred feet of five-inch pipe, both direct and indirect radiators being used. For the latter method, Gold's indirect radiators, enclosed in hot air chambers of brick, are employed.

The ventilation is accomplished by means of a carefully devised system of flues built into the walls and under the floors, which delivers the vitiated air into the ventilating towers and shafts designed for the purpose.

The building was designed by Messrs. Van Brunt & Howe, of Boston, and

Mr. Van Brunt has kindly furnished the following description of its plans and purposes:

The problem for the building of a library for the University of Michigan comprised the following points of especial architectural interest:

First, A fire proof book room, capable of accommodating 100,000 volumes in book stacks, arranged so as to afford the greatest facilities for classification, the greatest accessibility for service, the utmost compactness of storage, and an equal distribution of light and heat in all its parts.

Second, Ample space for the administration of the library with departments for bibliography, cataloguing, and delivery, so placed as (*a*) to afford to the officials the most convenient access to the book room and to the unpacking room, (*b*) to facilitate the delivery of books to the students and the return of the books to their shelves, and (*c*) to control and overlook the entire area of the reading room.

Third, Two separate systems of porches, vestibules, and cloak rooms, the one for male and the other for female students, each provided with corridors and staircases, giving access (*a*) to the delivery desk, (*b*) to the public catalogue room, (*c*) to the reading room, (*d*) to six lecture rooms and apartments for special study, and (*e*) to galleries of art.

Fourth, A reading-room to accommodate 200 students, well lighted and ventilated in all its parts.

Fifth, Lecture rooms and special students' rooms, as above, well lighted and ventilated.

Sixth, Connected galleries of art for painting, sculpture, prints, and coins, occupying the upper story of the building.

Seventh, A system of construction absolutely fire-proof for the book room and approximately so for the rest of the building.

In conformity with these essential conditions, the book room, as constructed, occupies a separate wing in the rear of the building, 40 feet wide (interior measurement), 54 feet long, and 27½ feet high, divided into three stories, the two lower being each 7½ feet high. This space is divided transversely by nine ranges of iron book stacks two feet wide and three feet apart, the transverse passages thus formed being lighted by opposite windows in the side walls. Three longitudinal corridors are cut through these stacks, two of them against the side walls, 3½ feet wide, and one in the center 3 feet wide, thus dividing the stacks in each of the three stories into eighteen sections or blocks. These fifty-four sections are adapted to contain each 2,100 volumes, and afford a total capacity of 113,400 volumes. The floors of the intermediate stories are composed of hammered glass in the transverse passages and of stone slabs in the three longitudinal corridors. They are approached by iron stair cases at either end of the wing. A large lift, formed in a brick shaft at the end of the central corridor, communicates with the desk of the delivery clerk in the centre of the building, enabling him promptly to obtain books by signal as called for by the students, or to return them to their shelves after use. A fire wall separates the book room from the rest of the building, pierced with doorways in which are hung fire-proof doors. The ceiling is of brick arches sprung from transverse iron beams, supported by the iron standards of the book stacks. Each standard rises from a brick pier in the foundations which also supports a lower floor of stone slabs, thus protecting the apartment from access of dampness from below.

The librarian's department occupies the center of the building and is inter-

posed between the book room and the reading room; it comprises a public catalogue room, a delivery and receiving desk, a private room for the librarian and other apartments for bibliography and administration, with unpacking room in the basement.

Between the delivery desk, which is in the centre of the main floor, and the reading room, is a large area 32 feet square, approached on the right and left from the corridors, connected with the two porches, and affording abundant space for the passage of students and for the general transaction of business. This area lies between the two ventilating towers, through which, on the first story, the main corridors pass.

The reading room is a semi-circular hall, 80 feet in diameter, and 24 feet high; its ceiling is supported by eight columns, and it is lighted by a high frieze of windows, distributing light equally and avoiding cross rays. The floor of the hall is occupied by six ranges of reading desks, arranged in semi-circles concentric with the main outline of the hall, and accommodating 210 readers.

The apse-like projection of this building is the centre and distinguishing feature of the main front of the library. On each side of this apse projects a low wing, that on the right containing the porch, vestibule, and cloak-room for the male students, and that on the left, the corresponding entrance for the women. Both of these vestibules open on the main transverse corridor of the building, 12 feet 4 inches wide, crossing the public space before mentioned between the delivery desk and the reading room and passing under the two ventilating towers. At the outer ends of these corridors are the staircases, forming the central features of the side elevations of the building. This transverse corridor is expressed externally by the towers and staircase pavilions, which together form the highest mass of buildings in the whole structure, and have the same relation to the great apse that the scena of the Greek theatre has to the semi-circular auditorium.

From this transverse mass of building the book room extends towards the rear in the central axis, and, parallel with it, on the right and left, are two subordinate pavilions, 30 feet wide and 40 feet long, two stories high. These pavilions are occupied by four lecture rooms which are approached from the main corridor and staircases. There are also two smaller intermediate rooms on the second floor, 21 feet by 24 feet, adapted for the use of students and officers of the University employed in special researches. For these, separate doors open into the back room from an iron balcony which crosses over the delivery desk and gives communication across the building on the second floor.

The staircases ascend from the second to the third story in the two towers, and open into the sculpture gallery, which occupies the roof space over the reading room and delivery desk, and is lighted by a semi-circular louver which forms a characteristic feature in the pyramidal roof of the reading-room. From this room opens the picture gallery, which is placed in the upper story of the book-room wing, and is lighted by a sky-light. Over the smaller special students' rooms are rooms for the exhibition of prints, coins, and other objects of art. The roof spaces elsewhere give abundant storage space.

As regards construction, the book-room contains no inflammable material; it is protected from fire by every expedient known to architecture. The floors of the rest of the building are "mill floors" of solid plank laid flat-wise and containing no hollow space for the passage of fire or vermin. They rest upon heavy iron or timber girders, which form caissons or panels in the ceilings, and are covered with a protective envelope of plaster and stucco.

The extreme length of the building is 155 feet 11 inches; its width, 145 feet 8 inches; its height about 125 feet.

The amount available for the execution of a building of such very considerable size was such as to render quite impracticable a highly ornamented construction. The aim, therefore, has been to obtain adequate architectural effect, not by decoration or by richness of material, but by the symmetrical disposition of masses, according to the manner of the Romans in the construction of their public baths, by fenestration, by study of proportion, and by contrast by line. Every architectural feature has been suggested by a practical convenience or economy, with a view to the creation of a building which should be strong and honest, and at the same time a work of art.

STATE BOARD OF EDUCATION.

ANNUAL REPORT.

To the Superintendent of Public Instruction:

SIR,—The State Board of Education respectfully submit the following report for the year ending September 30, 1883:

The law (Act 206, of 1881) under which this report is submitted requires that certain specified points shall be considered. As these points are completely covered in the reports, herewith transmitted, of the acting Principal and the Treasurer, and as the previous reports of the Board have been elaborate and have entered much more into details than can be properly expected in subsequent reports, the Board deem it unnecessary to indulge in more than a brief statement of the condition of the interests under their charge.

STATE NORMAL SCHOOL.

During the Academic year ending June 30, 1883, the school was under the charge of Prof. Daniel Putnam as acting Principal, to which position, as stated in the last annual report, he was appointed August 19, 1882.

The duties of chief executive of a large school under ordinary circumstances are, from the nature of the case, onerous and perplexing; but when they are assumed temporarily, and the work done must have reference to a successor, their responsibility and delicacy are correspondingly increased. No far-reaching policy can be inaugurated; fidelity to the general interests, manifested in attention to details, is all that can wisely be aimed at. It is scant justice to Professor Putnam to say that the work entrusted to him was performed most efficiently and to the entire satisfaction of the State Board of Education, the Faculty, and the students. Under his administration the work of the school became more and more systematic, the interest of the students steadily increased, and the attendance was over twenty per cent. larger than that of the previous year. On his retirement from the office of Acting Principal, Professor Putnam assumed the Chair of Moral and Mental Philosophy, and the Science and Art of Teaching, in which very important position the State Board of Education are confident that he will, as he has in other positions in the Normal School, render valuable services to the State. During the academic year ending June 30, there were no changes in or additions to the Board of Instruction other than those noted in the last annual report, excepting that in October Miss A. E. Kimball was employed as assistant teacher for the remainder of the year.

In accordance with the provisions of the law the State Board of Education appointed as visitors to the Normal School for the year ending June 27, 1883,

the following named gentlemen: Prof. U. W. Lawton, of Jackson; Hon. Levi L. Barbour, of Detroit; and Hon. John T. Rich, of Lapeer.

At a meeting of the State Board of Education, held November 14, 1882, the Hon. Edwin Willits was unanimously elected principal of the Normal School, which position had been vacant since the resignation of Dr. M. MacVicar, Aug. 15, 1881. Having carefully looked over the ground, Mr. Willits accepted the position. His duties in Congress, where he was serving his third term as representative from the second district of Michigan, prevented him from immediately entering upon the duties of his new position. After March 4, 1883, at which date his term in Congress expired, Mr. Willits spent considerable time in visiting educational institutions in the country, and on the first of June entered on the service of the Board in superintending the work of repair and improvements upon the grounds and buildings of the Normal School. On commencement day, June 27, Mr. Willits was inaugurated Principal. His inaugural address is herewith transmitted. The approval with which the appointment of Mr. Willits was received by educators, the press, and the public of the State, was most gratifying to the State Board of Education, and no less gratifying is the earnestness and enthusiasm with which the Principal has entered upon his new work.

In appointing to so important a position as the Principalship of the Normal School, one whose life-work had been in other callings than the profession of teaching, one who had not through experience and study a systematic course of pedagogy behind him, the Board were mindful that they were departing from the ordinary course of procedure; but they desired especially to emphasize that clause in the legislative action of this State, which, in instituting a Normal School for the preparation of teachers, required that the State Board of Education should also provide for the instruction of its pupils "*in the fundamental laws of the United States, and in what regards the rights and duties of citizens.*" With this in view, no one seemed to the Board to combine, as Mr. Willits does, so many of the requisites necessary to lead the Normal School on to that great future which its founders confidently expected for it. Mr. Willits graduated from the Michigan University in 1855. For a few years thereafter he taught school, and, meeting the petty difficulties constantly encountered in the school-room, developed the tact necessary to overcome them. He soon entered upon the practice of law, in which profession, his knowledge of the law and his skill in the courts secured for him distinction. Mr. Willits, however, retained more or less directly his connection with and interest in educational matters. For full twenty years he was a leading member of the local board of education of Monroe; for twelve years (from Jan. 1, 1861, to Dec. 31, 1872) he served as a member of the State Board of Education, in which position he became familiar with the affairs of the State Normal School; in the State constitutional commission of 1873 he served as chairman of the committee of education. His scholarship and scholarly tastes, his large experience, his acquaintance with men and affairs, coupled with his thorough knowledge of the subjects assigned to him to teach, justify, in the opinion of the State Board of Education, their going outside of the profession of teaching in selecting a man for the responsible position of Principal of the State Normal School.

The Legislature of 1883 having made appropriations in accordance with detailed estimates submitted by the State Board of Education, the teaching force of the school has been increased, and thereby the size of classes has been reduced and the teachers are enabled to give much more attention to each

individual student. On the recommendation of Principal Willits the following named persons have been appointed to positions in the Board of Instruction of the Normal school: Mr. William H. Brooks, assistant in the department of Ancient Languages; Mr. George F. Key, assistant in the department of Mathematics; Miss Rose V. Barton, assistant in the department of Modern Languages; Miss Florence Goodison, assistant librarian. All of these new appointees graduated from the Normal school in the class of 1883, and entered upon their several duties in the school with the beginning of the present academic year.

The chair of English Literature and Language, made vacant, as stated in the last annual report, by the transfer of Prof. Austin George to the Directorship of the Training School, has not yet been filled. The work in this department has been divided among the teachers of the school until such time as a suitable person shall have been secured for the position, which time, it is hoped, is in the very near future. Otherwise than in the department of English Literature and Language every position in the Board of Instruction is filled.

The school entered upon the present academic year with an unprecedentedly large attendance of pupils, better equipped than ever before for securing efficient and thorough instruction in the various departments of the school, and with every prospect of increased influence and usefulness.

Late in the session of the Legislature of 1883 an appropriation of $7,700.00 was made for the purposes of grading the grounds, building out-houses, painting buildings, and making other necessary repairs and improvements on the grounds and buildings of the Normal School. The work contemplated in the act of the Legislature making this appropriation is progressing under the supervision of Principal Willits, but has not advanced sufficiently to enable the Board to speak of it in its entirety. The work to be done was of such a character and so difficult to cover with specifications, that, with the exception of painting buildings, staining walls, etc., a contract for which work was awarded to Brand & McCullough, of Detroit, it is being done by the day.

Up to the date covered by this report there has been disbursed from this fund as follows:

On account of repairing buildings	$915 22
On account of painting building, etc.	3,625 47
On account of grading grounds	365 60
On account of building out-houses	1,450 00

State Certificates.

In compliance with the provisions of Act No. 231, laws of 1879, relative to State Certificates, the State Board of Education have, under the regulations governing their issuance adopted by the Board and published in their last annual report, granted State certificates since the enactment of the law to the following:

Upon Invitation.

Miss Julia A. King, Ypsilanti.
C. B. Thomas, A. M., Saginaw.
Charles Kelsey, A. M., Marquette.
H. R. Pattengill, B. S., Ithaca.
E. B. Fairfield, Jr., B. S., Grand Haven.
J. W. Robinson, Manchester.
Miss M. Louise Jones, Charlotte.
David Howell, Lansing.
Frank Landon, Niles.
Mrs. L. F. Selfridge, Jackson.
E. P. Church, A. M. Greenville.
Z. C. Spencer, A. M., Battle Creek.
M. T. Gass, A. M., Flint.
H. R. Gass, A. M., Jonesville.
Miss Linna Schenck, Fenton.
Varnum B. Cochran, A. M., Marquette.
J. G. Plowman, White Pigeon.
J. S. Crombie, Big Rapids.

Upon Examination.

James Warnock, Jr., Spring Lake.
L. O. Chatfield, Mt. Pleasant.
C. E. Swift, Lexington.
W. A. Fallass, M. D., Cedar Springs.
James A. Smith, Evart.
Frank Millis, Lapeer.
J. G. Johnston, Three Oaks.
W. W. French, McMillan.
C. C. Wood, Wacousta.
E. J. Wiley, Sault Ste. Marie.
James Brassington, B. S., Hart.
E. A. Condit, Morenci.
G. J. Edgecumbe, Benton Harbor.

Examination Questions.

In accordance with the requirements of law questions suitable for use at the examination of applicants for certificates to teach, have been prepared and furnished to examining boards throughout the State for the regular spring and fall examinations.

Mineral Collections.

Section 3, Act 9, laws of 1877, provides that the Commissioner of Mineral Statistics shall collect each year not less than ten typical suites of specimens of the copper, iron, and other ores of the State, and examine them microscopically, name and classify them, and show by geological sections their stratigraphical positions; and that such collections shall be at the disposal of the State Board of Education for distribution among the educational institutions of the State.

Such collections never having been placed at the disposal of the Board, the Secretary was instructed to correspond with the commissioner with reference to the provisions of the law. It is hoped that during the coming year a distribution of specimens may be made.

Respectfully submitted,

GEORGE F. EDWARDS,
H. R. GASS,
BELA W. JENKS,
EDGAR REXFORD,
State Board of Education.

Ypsilanti, Sept. 30, 1883.

A.

REPORT OF THE ACTING PRINCIPAL, FOR THE SCHOOL YEAR 1882-83.

To the Board of Education:

Gentlemen.—I present herewith a report of the Normal School for the academic year 1882-3, including such statistics and other matters as the statute requires. To these I have added only a few words, as any extended and general discussion of what may be called "normal problems" would be of questionable taste, and would demand more time and more careful consideration than I can now give.

Design and Organization.

The Normal School is, by the Constitution of the State, made a part of our educational system, and is placed under the control of the State Board of Education. Its sole aim is to qualify teachers to perform efficiently the various kinds of work required in the public schools. Hence the organization of

the school in all its departments has special reference to this result. The courses of study, the methods of instruction, and the practice teaching are so arranged as to give a thorough professional training.

State Board of Education—Hon. George F. Edwards, President, Niles; Hon. H. R. Gass, Secretary, Lansing; Hon. Edgar Rexford, Ypsilanti; Hon. B. W. Jenks, St. Clair.

Superintendent of Public Instruction—Hon. H. R. Gass.

Board of Visitors—Supt. U. W. Lawton, Jackson; Hon. Levi J. Barbour, Detroit; Hon. John T. Rich, Elba.

General Information.

1. Appointments and Tuition.

The school year is divided into two terms of twenty weeks each. Every student, not holding an appointment from a member of the State Legislature, is required to pay five dollars in advance as a tuition fee for each term.

Each member of the Legislature of Michigan is authorized by the Board of Education to appoint two students from his district, who will be received on the presentation of a certificate of appointment, free of charge. The certificate must be presented at the time of admission, or the regular fee will be required. Each appointment is good for one year only.

2. Board and Expenses.

Students can board only at such places and under such regulations as are approved by the faculty. Gentlemen and ladies cannot occupy rooms in the same house, unless by special permission first obtained from the Principal. Board and furnished rooms can be obtained in private families at rates varying from $3.00 to $4.00 per week. Many, by "clubbing," reduce the expenses of board to $2.00 or $2.25 per week. Others board themselves, and thereby bring their expenses within $2.00 per week.

3. Literary Societies.

The literary societies connected with the school are organized under one general constitution, and constitute together the Normal Lyceum. At present there are four divisions of the Lyceum, known as the "Adelphic," "Olympic," "Crescent," and "Atheneum" Societies. The membership of each division society is limited to forty. New divisions will be organized as the demands of the school may require. The public exercises of the Lyceum, and the special exercises of the division societies are so arranged as to give full and excellent opportunities for acquiring a correct knowledge of the rules and usages of deliberative bodies, and for practice in public reading, declamation, debate, and essay writing.

4. Christian Association.

A large and vigorous society exists under this name. Its objects are to promote the growth and development of moral and Christian character, and to cultivate those graces and habits which will prepare its members for greater usefulness here and elsewhere.

Requisites for Admission.

All applicants for admission must sustain a satisfactory examination upon the following subjects:

(*a.*) Arithmetic, which includes a thorough acquaintance with the facts,

principles, and operations of simple and compound numbers, of common and decimal fractions, of ratio and proportion, of involution, and of percentage, and the ability to work readily and neatly, examples under each of these heads.

(*b.*) Elements of English Grammar, which includes a thorough knowledge of the parts of speech, the elements of the sentence, and the classification and analysis of sentences according to use and structure.

(*c.*) Geography, which includes a thorough knowledge of the natural divisions of land and water, their location and characteristics; of the political divisions, including countries with their inhabitants, governments, products, industries, religion, education, and important cities; of the form and motions of the earth and the phenomena resulting therefrom, as the succession of day and night, change of seasons, the boundaries of zones, classification of circles, latitude and longitude.

(*d.*) Reading, which includes a thorough knowledge of the correct use of inflection and emphasis, and the ability to read with expression any ordinary passage of prose or poetry.

(*e.*) Spelling, which includes the ability to spell and write correctly words in common use in ordinary reading matter.

(*f.*) Algebra. For entrance to any course except the English, pupils must sustain an examination in the elements of Algebra upon the subjects of Addition, Subtraction, Multiplication, Division, Factoring, Greatest Common Divisor, Least Common Multiple, and Fractions.

Requisites for Entering Advanced Classes.

Persons who have passed the entrance examinations will be admitted to any advanced class by sustaining the necessary examinations, or without examination on presenting certificates of standing from the Superintendent or Principal of a High school, Graded school, or other institution of learning approved by the Faculty. *Such certificate, in order to be accepted, must state definitely the amount and kind of work covered by the standings given.*

Certificates of standing will not be accepted in those branches required by the law for the lowest grade legal certificate, namely, *Orthography, Reading, Writing, Geography, Grammar, Arithmetic, U. S. History, and Civil Government.*

The arrangements of the Normal School are such that special instruction will be given in these branches during the entire school year.

Ladies must not be less than sixteen, and gentlemen not less than eighteen years of age, before entering the third year of any of the courses.

Diplomas and Certificates.

Pupils graduating and receiving Diplomas from any course are entitled to legal life certificates of qualification to teach in any of the public schools of the State not under special law.

These certificates may, for sufficient reasons, be revoked by the Faculty of the school; and their force may be suspended, for sufficient reasons, by local examining boards in the territory over which they have jurisdiction.

Board of Instruction—1882–3.

Daniel Putnam, A. M., Acting Principal, Principles of Teaching.

Julia A. King, Preceptress, History.

Frederic H. Pease, Vocal and Instrumental Music and Director of the Conservatory of Music.

Charles Fitz Roy Bellows, M. A., C. E., Mathematics.
Lewis McLouth, M. A., Ph. D., Natural Sciences.
Joseph P. Vroman, M. A., Latin and Greek languages.
August Lodeman, German and French Languages.
Austin George, M. A., Director of the School of Observation and Practice; English Language.
Helen Post, Critic in Grammar Grades of School of Observation and Practice.
Fanny E. Goffe, Drawing, Penmanship, and Book-Keeping.
Ann Janette Bignell, Instructor in English.
Ency J. Coleman, Critic in Primary Grades of School of Observation and Practice.
Lucy A. Osband, M. A., Instructor in Biology and Literature.
Ann Eliza Kimball, Instructor in Mathematics and History.

COURSES OF INSTRUCTION.

SCIENTIFIC COURSE.

First Year.

First Term.—1. Arithmetic. 2. Grammar and Composition. 3. History of the United States. 4. Vocal Music.
Second Term.—1. Algebra. 2. Local, Mathematical, and Physical Geography. 3. Botany. 4. Object Drawing.

Second Year.

First Term.—1. Algebra. 2. General History. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks, Professional Training in Geography, 5 weeks. Essays.
Second Term.—1. Geometry. 2. English Literature. 3. Elementary Physics, 4. Penmanship, 10 weeks; Zoology, 10 weeks. Essays.

Third Year.

First Term.—1. Geometry. 2. Comparative Zoology and Physiology, 10 weeks; Civil Government, 10 weeks. 3. Geology, 10 weeks; Book-keeping, 10 weeks, 4. Principles of Teaching. Essays.
Second Term.—1. Higher Algebra. 2. Drawing. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Principles of Teaching, etc. Essays.

Fourth Year.

First Term.—1. Chemistry. 2. Higher Physics. 3. Professional Training in Reading and Orthography, 10 weeks; History of Education, etc., 10 weeks. 4. Practice Teaching. Essays.
Second Term.—1. Chemistry, 10 weeks; Astronomy, 10 weeks. 2. Trigonometry and Surveying. 3. Political Science, 10 weeks; Training in Physical Sciences, 10 weeks. 4. Practice Teaching. Essays.

LITERARY COURSE.

First Year.

First Term.—1. Arithmetic. 2. Grammar and Composition. 3. History of the United States. 4. Vocal Music.
Second Term.—1. Algebra. 2. Local, Mathematical, and Physical Geography. 3. Botany. 4. Object Drawing.

Second Year.

First Term.—1. Algebra. 2. General History. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Professional Training in Geography, 5 weeks. Essays.
Second Term.—1. Geometry. 2. English Literature. 3. Elementary Physics. 4. Penmanship, 10 weeks; Zoölogy, 10 weeks. Essays.

Third Year.

First Term.—1. Geometry. 2. English Literature, 10 weeks; Civil Government, 10 weeks. 3. Grecian and Roman History. 4. Principles of Teaching. Essays.
Second Term.—1. English History. 2. American Literature. 3. Professional

Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Principles of Teaching, etc. Essays.

Fourth Year.

First Term.—1. Chemistry. 2. General Literature. 3. Professional Training in Reading and Orthography, 10 weeks; History of Education, etc., 10 weeks. 4. Practice Teaching. Essays.

Second Term.—1. American History. 2. Advanced Rhetoric, etc. 3. Political Science, 10 weeks; Training in Physical Sciences, 10 weeks. 4. Practice Teaching. Essays.

LANGUAGE COURSE.

First Year.

First Term.—1. Latin or German. 2. Physiology and Hygiene, 15 weeks; Professional Geography, 5 weeks. 3. History of the United States. 4. Vocal Music.

Second Term.—1. Latin or German. 2. Algebra. 3. Arithmetic. 4. Penmanship, 10 weeks; Civil Government, 10 weeks.

Second Year.

First Term.—1. Latin or German. 2. Greek or French. 3. Algebra. 4. Rhetoric. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Geometry. 4. Elementary Physics. Essays.

Third Year.

First Term—1. Latin or German, 2. Greek or French. 3. Geometry. 4. Principles of Teaching. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Principles of Teaching, etc. Essays.

Fourth Year.

First Term.—1. Latin or German. 2. Greek or French. 3. Chemistry. 4. Practice Teaching. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Political Science, 10 weeks; Training in Physical Sciences, 10 weeks. 4. Practice Teaching. Essays.

ENGLISH COURSE.

First Year.

First Term.—1. Algebra. 2. Grammar and Composition. 3. Local, Mathematical, and Physical Geography. 4. Object Drawing.

Second Term.—1. Algebra. 2. Grammar and Composition. 3. Arithmetic. 4. History of the United States.

Second Year.

First Term.—1. Algebra. 2. Penmanship, 10 weeks; Reading and Orthography, 10 weeks. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Professional Training in Geography, 5 weeks. Essays.

Second Term.—1. Geometry. 2. Vocal Music. 3. Elementary Physics. 4. Literary Reading, 10 weeks; Civil Government, 10 weeks. Essays.

Third Year.

First Term.—1. Chemistry or Botany. 2. General History. 3. Principles of Teaching. 4. Practice Teaching. Essays.

Second Term.—1. Political Science, 10 weeks; Laboratory Practice, 10 weeks. 2. Principles of Teaching, etc. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Practice Teaching. Essays.

SPECIAL COURSES.

Latin, German, or French may be substituted as follows:

SCIENTIFIC COURSE.

First Year.—In place of any subject in which the pupil shall pass a satisfactory examination.

Second Year.—First Term, in place of General History. Second Term, in place of English Literature.

Third Year.—First Term, in place of Comparative Zoölogy and Book-keeping. Second Term, in place of Higher Algebra.

Fourth Year.—First Term, in place of Higher Physics. Second Term, in place of Trigonometry and Surveying.

LITERARY COURSE.

First Year.—In place of any subject in which the pupil shall pass a satisfactory examination.

Second Year.—First Term, in place of General History. Second Term, in place of English Literature, 10 weeks, and of Zoology, 10 weeks.

Third Year.—First Term, in place of Grecian and Roman History. Second Term, in place of Advanced Rhetoric. In this case General History will take the place of English History.

Fourth Year.—First Term, in place of General Literature. Second Term, in place of Advanced Rhetoric. In this case English History will take the place of American History.

SPECIAL COURSE WITH MUSIC.

First Year.

Any one of the other courses which the student may select with the approval of the Principal.

Second Year.

First Term.—1. Elements of Vocal Music with Methods of Instruction. 2. Algebra. 3. Rhetoric. 4. German, French or Latin. Essays. Instrumental Music may be substituted for either 2, 3 or 4.

Second Term.—1. Advanced Vocal Music and Voice Culture. 2. Elementary Physics. 3. English Literature. 4. German, French or Latin. Essays. Instrumental Music may be substituted for 2, 3 or 4.

Third Year.

First Term.—1. Harmony. 2. Voice Culture. 3. Principles of Teaching. 4. German, French or Latin. Essays. Instrumental Music may be substituted for 4.

Second Term.—1. Harmony. 2. Voice Culture. 3. Principles of Teaching, etc. 4. German, French or Latin. Essays. Instrumental Music may be substituted for 4.

Fourth Year.

First Term.—1. Musical Composition and Literature of Music. 2. Solo Singing. 3. Language or Literature. 4. Practice Teaching. Essays. Instrumental Music may be substituted for 3.

Second Term.—1. Solo Singing. 2. Literature. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Practice Teaching. Essays. Instrumental Music may be substituted for 2.

NOTE.—The Normal School does not provide instruction in instrumental music. Such instruction may be had in the Conservatory of Music, under the charge of Prof. Pease.

TEXT AND REFERENCE BOOKS.

English Grammar and Composition.—*Swinton.*
English and American Literature.—*Shaw, Royse.*
United States History.—*Bush's Berard, Eliot, Ridpath.*
General History.—*Anderson's Series.*
Zoölogy.—*Tenney, Orton.*
Botany.—*Wood, Gray.*
Geology.—*Dana.*
Physiology.—*Brown.*
Book-Keeping.—*Williams and Rogers.*
Elementary Algebra.—*Bellows.*
Higher Algebra.—*Olney.*
Arithmetic (methods).—*Bellows.*
Geometry.—*Bellows.*
Trigonometry.—*Bellows.*
Rhetoric.—*D. J. Hill.*
Elementary Physics.—*Cooley.*
Higher Physics.—*Gillet and Rolfe.*
Chemistry.—*Youmans, Barker.*
Astronomy.—*Lockyear.*
Latin Grammar.—*Allen and Greenough.*
Latin Reader.—*Allen and Greenough.*
Cæsar.—*Allen and Greenough.*
Cicero.—*Allen and Greenough.*
Virgil.—*Allen and Greenough, or Frieze.*
Horace.—*Lincoln.*
Greek Grammar.—*Goodwin and Hadley.*
First Greek Book.—*White.*
Anabasis.—*Goodwin.*
Sketches from Historians.—*Boise and Freeman.*
Iliad.—*Boise.*
History of Greece.—*Smith.*
Science and Art of Teaching.—*Putnam.*
Mental Science.—*Hamilton, Haven.*
Moral Science.—*Lectures.*

Books used in the Department of Modern Languages are indicated in the description of the courses in that Department.

Text-Books Used in Practice School.

Arithmetic.—*Bellows, Olney, etc.*
Language.—*Swinton, Reed, and Kellogg.*
Readers.—*Modern School, etc.*
Geography.—*Appleton, Our World, etc.*
United States History.—*Higginson, Swinton, etc.*
Penmanship.—*Spencerian.*
Dictionary.—*Webster.*

Other books are used when desirable.

Normal Conservatory of Music.

The course in vocal music in the Normal School is sufficiently extensive and thorough to prepare teachers to give the elementary instruction usually required in this subject in the public schools; yet, there is a great demand for teachers who can do higher work than this course contemplates,—teachers who are fully prepared to conduct choral classes and give instruction in instrumental music. In view of this fact, the State Board of Education have arranged with the professor of music in the Normal School to organize and become Director of the Normal Conservatory of Music, thus associating with himself able and efficient instructors in the various departments of the science and art of music, and providing, without any additional expense to the State, ample opportunities to students in the Normal School to pursue to any desired extent, the study and practice of vocal and instrumental music. Those intending to pursue studies in the Conservatory should apply for special circular.

Normal Department and Practice School.

Number of students in the several classes and departments during the year was as follows:

Normal Department:		
First Year	129	
Second Year	140	
Third Year	71	
Fourth Year	44	
Special Courses	10	
Post Graduates	4	398
Practice School:		
Primary Department	78	
Grammar Department	102	180
Counted twice by transfer	4	
Total		574

Graduating Class.

LANGUAGE COURSES.

Maria A. Bobay, L. G.—Ontonagon.
William H. Brooks, Cl.—South Lyon.
Rose V. Barton, Lit. G.—Warren.
Lillie Bassler, M. L.—Ann Arbor.
Fannie H. Cheever, M. L.—Ypsilanti.
Walter Cheever, Cl.—Northville.
Eva P. Dean, L. G.—Cedar Springs.
Thomas Dooling, Cl.—Hancock.
Emily Fuller, Lit. L.—Ypsilanti.
Mary Fuller, Lit. L.—Ypsilanti.
Mary S. Gitchell, Cl.—Ypsilanti.
Florence Goodison, L. G.—Ypsilanti.
Lillie S. Hunt, M. L.—Ypsilanti.
John W. Harris, Cl.—Wayne.
William A. Hearn, L. G.—Walton, N. Y.
Ch. Maria Hutchins, Sc. L.—Ludington.
Florence B. Kinnie, Cl.—Ypsilanti.
Milton M. Marble, Cl.—Marshall.
George H. McFetridge, L. G.- Ida.
Leslie J. Meacham, L. G.—Adamsville.
Tena Noyes, Lit. L.—Plymouth.
Mary Richardson, L. F.—Fort Scott, Kan.
James H. Sinclair, Sc. L.—Hanover.
Fred R. Stansell, L. G.—St. Johns.
Louise H. Stuart, L. G.—Petersburgh.
Worthy L. Shuart, L. G.—Lowell.
William W. Hoadley, L. F.—West Potsdam, N. Y.

ENGLISH COURSES.

Sylvester J. Asquith, Sc.—Stockbridge.
Maggie Barr, Art.—Augusta.
Helen Close, Eng.—Chicago, Ill.
George F. Felts, Sc.—Nine Mile, Ind.
Ermine A. Howe, Lit.—Coldwater.
Esther M. Hodge, Sc.—Plymouth.
James H. Hanford, Sc.—Plymouth.
Carrie R. Heaton, Sc.—Benton.
George F. Key, Sc.—Ypsilanti.
Emma M. Ruddiman, Lit.—Dearborn.
Anna E. Sherman, Lit.—Charlotte.
Aurelia Southwick, Lit.—Martin.
Lottie E. Smith, Lit.—Howell.
Florence Shultes, Lit.—Martin.
Lora A. Smith, Eng.—Grand Haven.
Corrington E. Swift, Sc.—Lexington.
Mina Tregellas, Lit.—Calumet.
Ann Tregellas, Lit.—Calumet.
Anna E. Wood, Lit.—Saline.
George L. Woodworth, Sc.—Canton.
Annah M. Soule, Lit.—Jackson.

COMMON SCHOOL COURSE.

Belle I. Blodgett—Midland.
Kate Betts—Hillsdale.
Belle Covert—New Hudson
Lizzie E. Church—Grand Rapids.
Emily Camp—Ypsilanti.
Mary S. Cooper—Owosso.
Blanche D. Curtis—Linden.
Lizzie Cannon—Birmingham.
Emma Chase—Wayne.
Maggie I. Duncan—Midland.
Marion M. Earl—Ypsilanti.
Agnes M. Earles—Detroit.
William A. Ellis—New Boston.
Addie A. Erwin—Farmington.
Letitia Fell—Belleville.
Carrie Farr—Peck.
Carrie E. Fiske—Jackson.
Minnie S. Fellows—Manchester.
Dimmie K. Fletcher—Wyandotte.
Lomina J. Fletcher, Wyandotte.
Ina M. Gage—Petoskey.
Nellie Gregory—Marquette.
Lydia J. Hurd—Ann Arbor.
Emily C. Hill—Leslie.
Elmer W. Hall—Lawton.
Elva C. Howe—East Milan.
Anna E. Hurrell—Owosso.
M. Addie Huntington—Jackson.
M. Roy Holt—DeWitt.
Anna L. Hodge—Newburyport, Mass.
Jennie B. Kilpatrick—Ridgeway.
William T. Kidd—Chesaning.
Laura Kinney—Clyde.
Nettie Kinney—Clyde.
Luella King—Muir.
Emma Kent—Greenville.
Louie E. Lord—Hancock.
Jennie L. Muir—Erie.
Lillie S. Muir—Erie.
Maggie J. McElhinney—Port Huron.
Libbie McIntosh—Lapeer.
Clarence D. McLouth—Adrian.
Susie Nugent—Nankin.
Alice C. Palmer—Exeter.
George H. Purchase—Chelsea.
Lola M. P. Pickell—Elk Rapids.
Elva L. Richart—Macon.
Luella Redfield--Macon.
Jessie V. Southee—Wayne.
May M. Stinchcomb—Schoolcraft.
Alphonso J. Tourville—Champion.
Myrtle B. Upton—Salt River.

Total, 100.

The statistics of attendance in the normal department proper since 1870–1 are presented, both as a matter of interesting information and also as affording the means of judging of the condition of the School so far as this is indicated by the number of pupils.

Years.	No. Enrolled.	Years.	No. Enrolled.
1870–1	231	1877–8	338
1871–2	296	1878–9	292
1872–3	329	1879–80	298
1873–4	364	1880–1	318
1874–5	409	1881–2	330
1875–6	449	1882–3	398
1876–7	366		

The increase during the year just closed over 1881-2 is sixty-eight. This number is a little larger than the increase of any year since 1870–1, and very much larger than that of any recent year. The figures are of interest as seeming to indicate a restoration of public confidence in the work of the school, and the opening of a period of greater prosperity and usefulness. They give occasion, not for especial congratulation, but for reasonable expectations of greater and better things in the near future.

In addition to this increase of numbers it is gratifying to be able to note an

increase of harmony and efficiency in the internal working of the School. It is due to my associates in the Board of Instruction that I bear testimony to their earnest and cordial coöperation in all matters which demanded mutual consideration and effort.

The work in the various departments of instruction during the year has been generally of a satisfactory character, and the progress of the students, in most cases, has also been satisfactory. Efforts have been made to increase the thoroughness of study and instruction in the elementary branches of a common school education. These efforts have been as successful as could be expected under existing circumstances. The limited teaching force has made it necessary to have, in some branches, very large classes or to employ instructors of too little experience and acquirements. This evil will be provided against in the future by the employment of a larger number of regular instructors and by some judicious subdivision of departments.

It is impossible to emphasize too strongly the imperative necessity of providing the very best instruction in the primary branches.

In concluding I may be pardoned for adding that I lay off the temporary authority and responsibility with which you clothed me with much more pleasure than I felt in assuming them. The indications of the future for the school are peculiarly favorable. The increased prosperity of the past year betokens a greater increase in the coming year. With a permanent executive officer in whom the Board and the State have the fullest confidence, with an enlarged Board of Instruction, with increased facilities in the way of buildings, library, and apparatus, with a revival of interest in Normal instruction, there is every reason to expect that the school will make for itself a still wider field of usefulness, and will do more efficient service to the cause of popular education.

DANIEL PUTNAM,
Acting Principal.

NORMAL SCHOOL, YPSILANTI, June 30, 1883.

B.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR,—The committee appointed to inspect the Normal School at Ypsilanti, beg leave to report that they visited that institution twice during the year that has passed, and attended upon all its exercises. They were present at morning prayers, when all the students assembled in the hall, and saw them again at the close of their devotions file out, and pass, in good order and with perfect decorum, to their several rooms for study and recitation. In the class-rooms of the different instructors they observed the methods of teaching, and had an opportunity to judge of the proficiency of the scholars. They witnessed the instruction of classes in Geometry, History, Chemistry. Natural Philosophy, Ancient and Modern Languages, and Mental Philosophy; and also the work of the older students in the practice school, and they are pleased to report that the teaching in these several branches was accurate and in accordance with the best methods. The students also appeared to be attentive and eager to learn. It seemed, however, to be a matter of regret that

it should be necessary to give so much elementary instruction in a professional school; but whoever is acquainted with the history of normal schools must admit that it cannot be avoided, in the present state of public education, not even in the oldest States in the Union, and certainly it is not to be expected in the younger ones, whose institutions are less developed. The disadvantage, nevertheless, is in a measure compensated by the fact that one of the best ways to learn the art of teaching is to be instructed by the best teachers.

An inspection of the chemical and philosophical apparatus showed that the institution was tolerably well supplied with what was needful, but the number of specimens to illustrate the natural sciences was found to be very small, and most of them in a wretched condition. There were scarcely any minerals or fossils, and the few specimens in ornithology had been poorly cared for, and are now, if they were not at first, mere caricatures of the living birds which they were intended to represent. It is surprising that so important a matter has been so long neglected, inasmuch as, in an institution designed to prepare teachers for county and village schools, there would seem to be especial reasons for giving some prominence to the study of natural history.

In conclusion, the committee desire to express their thanks for the very courteous attentions, during their visit, of Professor Daniel Putnam, the Acting Principal, and also for the information concerning the management of the school, which was so kindly afforded by other members of the faculty.

Respectfully submitted,

U. W. LAWTON,
Chairman.

C.

FINANCIAL EXHIBIT FOR 1882-83.

STATE BOARD OF EDUCATION IN ACCOUNT WITH EDGAR REXFORD, TREASURER.

Salaries.

Edwin Willits	4	months		$1,400 00
Daniel Putnam	10	"		2,450 00
Lewis McLouth	10	"		1,980 00
F. H. Pease	10	"		1,880 00
C. F. R. Bellows	10	"		1,940 00
A. Lodeman	10	"		1,880 00
J. P. Vroman	10	"		1,880 00
Austin George	10	"		2,000 00
Julia A. King	10	"		1,080 00
Helen M. Post	10	"		700 00
Fanny E. Goffe	10	"		700 00
Lucy A. Osband	10	"		700 00
Ann J. Bignell	10	"		700 00
Ency J. Coleman	10	"		700 00
Ann E. Kimball	9	"	2 weeks	382 50
Rose V. Barton	1	"		35 00
Florence Goodison	1	"		30 00
W. H. Brooks	1	"		40 00
George F. Key	1	"		40 00
C. C. Vroman	12	"		1,000 00
				$21,517 50

Current Expense Account.

1882.	No. of Voucher.	To Whom Paid.	Amount
Sept. 26.	1	Detroit Metal and Heating works, repairing steam heating apparatus	$140 00
Oct. 20.	2	Frank Smith, books, stationery, chemicals, etc	64 61
	3	Follmor & Scoville, lumber	24 77
	4	Ypsilanti Gas Light Co., 22,500 ft. gas	67 50
	5	D. Hayes, work and lumber	23 38
Oct. 26.	6	Philander Hascall, slating blackboards, painting, etc	120 37
	7	Albert Koyl, building sidewalk	22 00
	8	M. T. Woodruff, printing	14 00
	9	Stevens & Loomis, hardware	17 04
	10	E. Samson, envelopes	8 50
	11	Drury & Taylor, hardware	2 68
	12	Julia A. King, expenses	4 15
Oct. 31.	13	Pay roll (shown in salary account)	1,883 33
Nov. 30.	14	Pay roll (shown in salary account)	1,928 33
Dec. 4.	15	Detroit Electrical Works, electrical gongs, etc	27 18
	16	Post and Tribune, advertisement in Mich. Almanac for 1883	20 00
	17	D. Putnam, express charges, etc	3 25
	18	Edwin Willits, expenses	6 00
	19	C. A. Towne, envelopes	65
	20	Frank Joslin, drawing bond	1 00
	21	Telephone and Telegraph Construction Co	24 00
	22	D. Putnam, gas fixtures, etc	6 25
Dec. 30.	23	James Smith, sawing 9⅝ cords wood	3 85
	24	Orson Overacre, 9⅝ cords wood	43 31
	25	Homer Briggs, cartage and moving pianos	11 40
	26	Stevens & Loomis, hardware	3 51
	27	Ypsilanti Gas Light Co., 42,800 ft. gas	128 40
	28	American Express Co., express charges	25
	29	J. P. Vroman, room moulding, etc	2 00
	30	C. R. Pattison, printing	17 00
	31	C. R. Pattison, printing	4 75
	32	Follmor & Scoville, lumber	15 39
	33	A. Lodeman, paid for copying report	1 00
	34	C. C. Vroman, paid for wood, etc	7 45
	35	C. Spencer, P. O. stamps and envelopes	32 18
	36	William Mallion, repairing steam pipes, etc	3 50
	37	A. Lodeman, expenses to Ann Arbor	75
	38	Ann E. Kimball (shown in salary account)	22 50
	39	Austin George, expenses to Detroit	3 36
	40	Otter Lake Lumber Co., lumber	6 26
	41	Normal News, advertisement	50 00
	42	Lewis McLouth (shown in salary account)	50 00
	43	American Express Co., express charges	2 70
	44	A. H. Andrews & Co., school furniture	807 51
	45	Drury & Taylor, 105¼ lbs. iron, etc	4 53
	46	Peninsular Paper Co., 76 lbs. paper	7 60
	47	Pay Roll (shown in salary account)	1,928 34
1883.			
Jan. 31.	48	Pay Roll (shown in salary account)	1,928 33
Feb. 27.	49	Pay Roll (shown in salary account)	1,928 33
Mar. 27.	50	Telephone and Telegraph Const. Co	24 00
	51	U. W. Lawton, expenses as member of visiting committee	5 30
	52	Homer Briggs, freight and cartage	63
	53	E. W. Bowen, 3 doz. brooms	9 75
	54	Thomas Neat, hacks for Legislative Committee	4 00
	55	U. W. Lawton, expenses as member of visiting committee	4 80
	56	Levi L. Barbour, expenses as member of visiting committee	3 80
	57	Austin George, 1 gal. liquid slating	4 55
	58	American Express Co., express charges	2 90
	59	Lewis McLouth, (shown in salary account)	50 00
Mar. 31.	60	Pay-Roll (shown in salary account)	1,928 34

1883.	No. of Voucher.	To Whom Paid.	Amount.
May 2.	61	Lang & Martin, frame for telescope	$13 00
	62	Eberbach & Son, chemicals	27 09
	63	Eberbach & Son, chemicals	9 78
	64	M. T. Woodruff, printing	11 00
	65	Lewis McLouth, drawing-paper, copper wire, etc	3 65
	66	Andrew Harvey & Son, 1 grate	15 00
	67	Lewis McLouth, expenses to Detroit and Lansing	9 95
	68	Edward Wilson, removing night-soil	5 00
	69	American Express Co., express charges	50
May 11.	70	R. W. Putnam, copper wire	2 25
	71	Daniel Putnam, expenses attending meeting of Board	7 90
	72	Telephone and Telegraph Const. Co	24 00
	73	James W. Queen & Co., philosophical apparatus	151 75
	74	Wm. McAndrew, map sticks	1 25
May 15.	75	Pay-Roll (shown in salary account)	2,048 33
May 31.	76	Pay-Roll (shown in salary account)	2,048 33
June 26.	77	McCullough Bros., repairing bell	1 50
	78	Peninsular Paper Co., 67 lbs. paper	6 70
	79	Joseph M. Smit & Co., pens	3 00
	80	C. King & Son, grass seed	3 00
	81	S. H. Dodge, repairing clock	2 00
	82	Follmor & Scoville, lumber	4 64
	83	Calvert Lith. Co., 110 diplomas	88 00
	84	A. Lodeman, printing circulars, etc	9 75
	85	A. Lodeman, expenses to Detroit	2 55
	86	Wallace & Clark, 12 chairs	7 50
	87	Pencil & Haggit, repairing furnace grate	4 80
	88	Edward Wilson, hauling dirt	3 50
	89	Frank Smith, chemical, stationery, school-supplies, etc	85 75
	90	E. Samson, 1 nautical almanac	1 50
	91	D. Putnam, expenses attending meeting of Board, express charges, etc., etc	7 42
	92	American Express Co., express charges	1 80
	93	Stevens & Loomis, hardware	9 11
	94	Stevens & Loomis, horse lawn-mower	90 00
	95	Ypsilanti Postoffice, stamps, envelopes, etc., etc	62 31
June 30	96	Pay-roll (shown in salary account)	2,398 34
July 10	97	E. H. Green & Co., printing programmes	7 80
	98	American Express Co., express charges	25
	99	M. T. Woodruff, printing	14 25
	100	Henry Niemann, making triangular blocks, etc	12 00
	101	Wm Mallion, repairing gas-pipe, etc	50
	102	Ypsilanti Gas Light Co., 92,000 feet gas	276 00
	103	Walter Hewitt, tuning piano	4 00
	104	C. R. Pattison, printing	38 00
	105	Parsons Bros., portable black-board	2 50
July 31	106	Pay-roll (shown in salary account)	433 33
Aug. 30	107	Telephone & Telegraph Construction Co	24 00
	108	F. L. Stewart, postage	10 00
	109	C. F. R. Bellows (shown in salary account)	60 00
	110	Ladies' Aid Society, alumni dinner	130 00
	111	F. L. Stewart, postage	13 00
	112	American Express Co., express charges	55
	113	Pennsylvania Coal Co., $332\frac{1728}{2000}$ tons small egg coal	1,840 05
	114	Edward Wilson, hauling coal	140 79
	115	Edwin Willits, envelopes, express charges, etc	2 73
	116	Homer Briggs, freight and cartage	1 78
Aug. 31	117	Pay-roll (shown in salary account)	433 33
Sept. 25	118	Homer Briggs, freight and cartage	3 04
	119	Edwin Willits, express charges and postage	1 80
	120	Austin George, paid for tables	35 52
Sept. 29	121	Pay-roll (shown in salary account)	2,448 34
Disbursements on acct. of current expenses for year ending Sept. 30, 1883			$26,566 77

DEBIT.

1883.		
May 31.	Transferred to Library fund	$1,500 00
Sept. 30.	Current expenses as per above statement	26,566 77
		$28,066 77

CREDIT.

1882.		
Sept. 30.	Balance from old account	$1,415 18
Nov. 1.	By cash from State Treasurer	4,839 07
Dec. 31.	By cash from tuition	1,272 50
	By cash from diploma fees	6 00
1883.		
Jan. 10.	By cash from State Treasurer	5,787 93
Apr'l 31.	By cash from sale of old desks	59 60
May 12.	By cash from State Treasurer	7,500 00
June 30.	By cash from sale of old settees	24 00
	By cash from tuition	1,140 00
	By cash from laboratory fees	152 00
	By cash from diploma fees	285 00
July 2.	By cash from State Treasurer	5,000 00
Sept. 30.	Balance to new account	586 09
		$28,066 77

Special Funds Account.

STATE BOARD OF EDUCATION IN ACCOUNT WITH EDGAR REXFORD, TREASURER.

1882.	No. of Voucher.	To Whom Paid.	Amount.
Sept. 26.	1	Detroit Metal and Heating Works, steam heating on account of new building	$1,478 13
Dec. 4.	2	Frank Smith, on account of library	70 25
	3	John McFarlane, on account of library	17 15
	4	R. A. Beal, on account of library	6 00
	5	John McFarlane, on account of library	20 08
1883.			
May 11.	6	John McFarlane, on account of library	31 42
June 26.	7	D. J. Fisher, on account of library	15 75
	8	D. J. Fisher, on account of library	8 25
	9	D. J. Fisher, on account of library	15 60
	10	A. Lodeman, on account of library	9 10
Aug. 30.	11	Brand & McCullough, on account of painting building	1,000 00
	12	Brand & McCullough, on account of painting building	1,000 00
	13	Brand & McCullough, on account of painting building	1,140 00
	14	Brand & McCullough, on account of painting building	485 47
	15	Ben Kirk, on account of grading grounds	6 13
	16	J. Snibly, on account of grading grounds	1 75
	17	James Kinney, on account of grading grounds	11 37
	18	Fred Humphry, on account of grading grounds	288 74
Sept. 25.	40	Edwin Willits, on account of grading grounds	57 61
Aug. 30.	19	James Coquillard, on account of repairing building	22 80
	20	James M. Forsyth, on account of repairing building	9 00
	21	Wm. G. Ross, on account of repairing building	23 75
	22	James Coquillard, on account of repairing building	28 00
	23	James M. Forsyth, on account of repairing building	12 00
	24	J. Shields, on account of repairing building	6 00
	25	Fred Seitz, on account of repairing building	22 50
	26	C. W. Minard, on account of repairing building	17 50
	27	E. E. Lyon, on account of repairing building	186 34
	28	S. L. Shaw, on account of repairing building	5 45
	29	Fred Seitz, on account of repairing building	15 00
	30	Wm. G. Ross, on account of repairing building	35 00
	31	C. W. Minard, on account of repairing building	21 00
	32	James Coquillard, on account of repairing building	21 00

1882.	No. of Voucher.	To Whom Paid.	Amount.
Aug. 30.	33	James M. Forsyth, on account of repairing building	$9 00
	34	Follmor & Scoville, on account of repairing building	50 54
	35	Edwin Willits, on acount of repairing building	1 25
	36	Lewis McLouth, Jr., on account of repairing building	17 69
	37	Fred Seitz, on account of repairing building	10 00
	38	Follmor & Scoville, on account of repairing building	129 06
Sept. 25.	40	Edwin Willits, on account of repairing building	84 67
	42	Philip Duffy, on account of repairing building	5 37
	43	Edwin Willits, on account of repairing building	183 30
Aug. 30.	39	Wm. G. Ross, on account of building out-houses	600 00
Sept. 25.	44	Wm. G. Ross, on account of repairing out-buildings	850 00
	45	John McFarlane, on account of library	732 93
	46	D. Putnam, on account of library	30 00
Disbursements on account of special funds for year ending Sept. 30, 1883			$8,790 95

DEBIT.

1883.		
Sept. 30.	Disbursements as per above statement	$8,790 95
	Balance to new account	2,000 66
		$10,791 61

CREDIT

1882.		
Sept. 30.	Balance from old account	$1,591 61
1883.		
May 31.	Transferred from Current Expenses to Library Fund	1,500 00
July 2.	By cash from State Treasurer	5,000 00
Sep. 29.	By cash from State Treasurer	2,700 00
		$10,791 61

EDGAR REXFORD,
Treasurer.

Ypsilanti, Sept. 30, 1883.

D.

INAUGURAL ADDRESS OF THE PRINCIPAL, HON. EDWIN WILLITS.

THE SCHOOL-MASTER; ILLITERACY; MORAL SENSE.

Mr. President, Ladies, and Gentlemen:

For two hundred and fifty years and more, these United States have been the arena in which three forces have contended. Schoolmasters, paupers, and slaves came to the New World almost in the same vessel—the schoolmaster mainly to the North, the slave mostly to the South, the pauper everywhere. Free schools took root in the granite of New England, slavery in the rank soil south of the Potomac, pauperism was transformed into affluence. In time the importation of schoolmasters and slaves ceased, but the tide of foreign poor has been constant to this day, westward—never eastward. Generations of them have been raised to opulence, to be followed by other generations seeking the same shores, animated by the same hope, so that absolute want would scarcely exist in this land to-day, but for the fresh cargoes landed monthly at our ports.

Slavery grew lusty, became insolent, and was killed—died in convulsions

that shook the continent. The first two and one-half centuries of our existence, contended with and overcame slavery and pauperism, but the schoolmaster is yet in his prime, and all these years has been the potential factor, the trusted agent in re-habilitating penury, and proclaiming freedom and free thought. He has traversed the lines of latitude from ocean to ocean, planting his free schools, till from Plymouth Rock to the Golden Gate, free education is as indigenous to the soil as the native pine that brushes the clouds, or the sturdy oak whose roots are deep and broad. He has selected his lines of latitude, however, as carefully as do the pine and the oak; they have not been the same as where grew tobacco and cotton and cane. Slavery and free schools could not exist together. It was always so; two civilizations along parallel lines of latitude, as distinct as two currents of the ocean; as distinct in the beginning as in the days of slavery dominance. This was due in part only to slavery, and in part to predilection. The Puritan and the Cavalier had diverse views, and each laid the foundation for his structure of civic society as he though best. A single contrast from the olden times will but demonstrate the two tendencies.

Those old Puritans had a grim vigor in their way of stating things; witness a portion of the preamble of the Massachusetts code of 1649:

"It being one chief project of that old deluder Sathan," says the preamble, "to keep men from the knowledge of the Scriptures, as in former times, keeping them in an unknown tongue, so in the latter times, by persuading men from the use of the tongues, so at least the true sense and meaning of the original might be clouded with the false glosses of saints seeming deceivers; and that learning may not be buried in the graves of our fathers;" every township is required to maintain a school for reading and writing, and every town of a hundred households, a grammar school with a teacher qualified to fit youth for the University. That is the base rock of the new State.

On the other hand, listen to Virginia, as she speaks in 1671, through her Governor:

"I thank God," said he, "that there are no free schools nor printing, and I hope we shall not have these hundred years, for learning has brought disobedience, heresy, and sects into the world, and printing has developed them, and libels against the best government. God keep us from both," he piously exclaims. There is no base rock here, but the base rock of popular ignorance and religious subservience. It describes the tendency, however, and it was the chosen line in which that social life was to be developed. It is true, that long before the hundred years had expired, printing had invaded the Old Dominion, and that it had much to do, as this old Governor prognosticated, with the revolt against "the best goverment," some hundred years later; but for two hundred years free schools did not contaminate the land with "disobedience, and heresy, and sects." For two hundred years the spirit of the old Virginia governor stalked the land, and was only to be expelled by the thunder of cannon and the clash of swords.

Two centuries constitute a sufficient parallax with which to calculate the results of the two tendencies. The last census shows clearly the status of the two sections. We will leave out at this moment the element of color, and make our comparison between the whites alone. They are mainly from the same stock, have the same mental power, physical stamina, vigorous ambition, moral purpose, and religious impulses. How do they stand in intellectual development and intelligent citizenship? In the thirteen States south of the Potomac, nearly twenty-five in every hundred of the native born whites

above ten years of age, cannot read and write, while north of that line including the former slave States, Delaware, Maryland, and Missouri, only about four in every hundred; in Virginia, one in every five and a half, while in Massachusetts only one in every one hundred and forty-three; in North Carolina, thirty-one and seven-tenths per cent, or nearly one in every three, while in Michigan only two and three-tenths per cent, or one in about forty-three.

The tenth census has thrown the schoolmaster and his supporters into a panic. Imperfect as it is, it is the most complete ever made, and answers partially many questions the thoughtful have been asking for some years. Its revelations, startling as they are, have shed light upon the illiteracy of the country, and have brought boldly into public view what had been foreshadowed by the census of 1870, that we are losing ground, that illiteracy is gaining upon us, in spite of the efforts being made for popular education. There were in the country at large in 1880, nearly four hundred thousand more persons unable to read than there were in 1870. The number of whites in the late slave-holding States in 1870, over twenty-one years of age, who could not read and write, was 217,371; in 1880, there were 410,550, an increase of 193,179. There was an increase of illiterate votes in the South from 1870 to 1880, of 187,671, of which 93,279 were white, and 94,392 were colored.

It is this revelation that has caused the panic among educators, I have noted. From 1870 to 1880, it was supposed that the great problem was what to do with the ignorance of the colored man. He had been endowed with citizenship and he must be educated; so the drift of educational effort was in that direction. But the census of 1880 has made it plain that the white race, that had always been citizens, was a disturbing factor of great magnitude, and the alarm has been passed all along the line. It transpires that negro ignorance is not the most difficult to manage; that white ignorance is prejudiced against education, repels it with an antagonism born in its blood and bred in its bone. As a rule, the negro takes kindly to the school, but the uneducated white man spurns it. The subject has assumed an appalling magnitude. What shall be done with the 1,400,000 illiterate whites, south of the Potomac, is a source of as much anxiety as what shall be done with the 3,220,878 illiterate negroes. The spirit of the old Virginia Governor has not been exorcised after all! The clash of arms simply drove him out of his ramparts; he still lingers in the woods, and on the hills, and among the swamps, and he will yet lead us in a long and weary chase before we are well rid of him. The impulse comes over us that we must, for the good of our country, do what we can to extirpate the evils of that tendency that is so fruitful of ignorance and danger to society.

But what can we do? We have our hands full now of our own illiteracy. There were of the foreign born, mostly in the north, in 1880, 763,620 above the age of ten years, who could not write. Massachusetts had 83,725, while of her native born whites, there were only 6,933, largely children of the former. Michigan has 38,951 of the foreign born, and nearly 20,000 native born. Massachusetts reduced her illiteracy in the ten years nearly 6,000, with a foreign immigration of 90,000, while Michigan increased hers 8,371, in a foreign immigration of 120,000. Massachusetts decreased her native born illiteracy nearly 1,000, and Michigan hers 2,556. It will be seen Massachusetts gained on her illiteracy in both branches, while Michigan, in the aggregate, has fallen behind. Massachusetts gained slightly on an annual expen-

diture of $4,720,951; Michigan fell behind, though she expended $3,112,468 in 1880. Illinois gained a little over 100 a year, at an expense of $7,720,682. Ohio gained over 5,000, at a cost of $7,707,630. New York gained 3,100, at an expense of $7,436,277. These figures are all for 1880, and will suffice to show what an effort it is to educate our own people; especially with the great immigration, a large percentage of which is uneducated. There is no great difficulty in practically obliterating what native born illiteracy exists here, and if we do not sleep on our watch, we may capture that which lands upon our shores. The great body of our people is educated so that it can readily take into solution the illiteracy that comes to us. But it is at a tremendous cost. A more vigorous compulsory education will practically extirpate the illiteracy. We owe it to the property that pays the taxes that the last vestige be blotted out. The consideration of payment is that it be wiped out; if we fail to resort to any lawful means to accomplish the result, there is just cause of complaint.

Now, it is manifest that as a nation we are not holding our own. Discounting as much as we may, for possible errors in the census, the fact seems to be incontrovertible that as a whole, the nation is losing ground in the matter of education, and that our appliances are not yet equal to the emergency. It is manifest, moreover, that the great mission field for the educator is the South. The barriers are now down, and the school-master and the people alike, are alive to the situation. At this time there is no section of the country so anxious for popular education as the South. It is a new era for her in development, and she welcomes the northern schoolmaster as she does northern capital. She, in more ways than one, is to be the gainer in the end, from the terrible convulsion that shook off the shackles of her tendencies, as well as her slaves. Her seeming subjugation will be to her a resurrection. While the outlook is not as flattering as it is to be desired, the most encouraging point is this fact, that that section is being aroused as never before. If there is any criticism to be made on the status of affairs there, it is to be found in the disposition to seek aid from the general government, and in so doing to lose the inspiration of self-work.

It has never been considered the mission of the general government to assume the education of its citizens. From the adoption of the ordinance of 1785—which preceded that of 1787—to the present time it has been the policy to promote it, not by paying money, but by the donation for school purposes, of public land. At first the sixteenth section, and subsequently also the thirty-sixth section as surveyed; also by grants in aid of Universities, and Agricultural and Mechanical Colleges. The aggregate of school sections so donated was 67,893,919 acres, of which Michigan received 1,067,397 acres; of University lands, 1,165,520 acres, of which Michigan had 46,080 acres; and of Agricultural and Mechanical Colleges 9,600,000, Michigan's share being 240,000 acres.

At first the school sections were simply reserved for the maintenance of public schools within the township, but nothing was said about the sale, nor by whom the money should be expended. There seems to have been no question in the minds of Mr. Dane, Mr. Madison, nor even of Mr. Jefferson, "that a government as the organ of society enjoys the right and is vested with the power to meet the necessity of public education." The reservation of the school section was therefore approved on all sides, but the question as to whether the United States should organize and manage the schools so endowed, was never definitely settled till 1802, when the enabling act, authorizing the

formation of a State government for Ohio, specifically granted it to the inhabitants of the township for the use of schools. In 1803, Congress vested the lands in the Legislature of the State "*in trust*, for the use aforesaid and for no other use, intent, or purpose whatever." Thus the State became the trustee of the United States in the management of the fund. Subsequently the same course was pursued in all similar legislation. The States have been charged with the trust, more, it would seem, as a matter of policy than otherwise.

The policy has been a wise one, for, though in some of the States, the fund has been perverted and squandered, for the most part it has been scrupulously guarded. The policy was a wise one for another and more cogent reason. That educational system which imposes the management of its schools upon the people, and brings them nearer home, will be more likely to enlist their sympathies and lie nearer their hearts. Popular interest is generally commensurate with popular control. The thousands of school districts in the State of Michigan, with the power to organize and manage the schools therein, inspire a lively appreciation of their benefit, give an impulse to popular education, and the discipline and experience acquired are salutary in the highest degree to the people, as citizens of the State and the Republic. But it is for the State to supervise, and by appropriate legislation, to secure the desired object. In a broader sense, it is undoubtedly the duty and the right of the United States to promote the intelligence and morality of its citizens. The States are, however, more specially charged with this trust, and whether this exclusive trusteeship shall be perpetual, and whether further endowment shall be made, must depend largely upon the good faith and efficiency of the trustee, and upon the further question whether it is policy for the general government to assume the charge of the education of its citizens. Until it is morally certain that the State agencies are false to their trust, and so inefficient that we are lapsing into ignorance and are falling into the hands of the "dangerous classes," can it be urged that the general government should take the matter in hand. Congress has the power to purge the ballot box of fraud when the ballot directly affects the existence and purity of the National Legislature; and while it is true, Representatives in Congress are voted for by the electors in the State, with qualifications fixed by the State, they are the agents, nevertheless, selected by the constitution, and in the exercise of this franchise the functions are national, not state. It is important that this agent be intelligent, and endowed with virtues befitting the high functions so exercised. It is, therefore, legitimate for the general government to inquire of the States as to what they are doing to secure the intelligence and virtues required. This inquiry has not proved as satisfactory as we could wish.

The fact that the States of Alabama, Georgia, Mississippi, and Louisiana have 480,418 illiterate votes, while their popular vote in 1880 was only 521,437, and the fact that in less marked degree only, the former slave States present this same deplorable condition of affairs; and the further fact that this illiteracy is not confined to one race, and is on the increase, have created a large and respectable demand, that the nation shall take hold of the subject for its own preservation. It is a broader question than that of the education of the negro, for whose enfranchisement we are responsible. We might justly be charged with a portion of the burden of his tutelage if it should be found that the States could not bear it. But there is no justice in the demand that the nation should pull the 400,000 white illiterate votes out of the slough of ignorance, into which the false ethics of the State for two hundred years has

plunged them. They made light of the free schools, and left popular education to take care of itself. The generations of ignorance will demand generations of educational growth. Indifference and contempt for education cannot be overcome by simply tendering the means of education. The hardest part of the problem for the South is how to educate the whites. The lever that shall raise that burden will take with it the negro. The dominant race, if of the right quality, can give character to all others.

Congress is asked to appropriate a large sum of money to be expended in the States in proportion to their illiteracy. The demand is aggressive, positive, pertinacious. It has already commanded a hearing, and has well nigh leveled a high road to the treasury. There are two considerations why we should hesitate in complying with the demands.

First. There is a strong sentiment in the States that would pay the most and receive but little of the money, that with the payment should go the management of the fund, that the nation should follow it to its consecrated end. This is undesirable, as I have already noted, and is objected to by the South itself. The Legislature of Georgia last December petitioned Congress very warmly for this aid, and requested their Senators and Representatives "to use their best endeavors to secure the passage of an educational bill, which shall be liberal in its monetary provisions," but they further requested them to see that "it was well guarded against improper Federal interference in the educational affairs of the State."

Second. The apparent fact that while there is much interest in the subject of education in the illiterate States, they are not yet doing what they can. There seems to be no valid reason why the States of New Jersey, Minnesota, Wisconsin, and Michigan, should expend in one year $8,321,819, while Alabama, Arkansas, North Carolina, and Kentucky, with about an equal population, paid only $2,129,347. The disproportion is not warranted by any plea of poverty. There is not yet the spirit of self-sacrifice, the dead earnestness necessary to abate the evil. There is too much fine talk, and not enough of personal work. In the north it is respectable to teach school; in the south not quite. In the north the normal impulse of the young man or young woman is to be a school teacher for a time, and they lose nothing in social position, or personal standing by the occupation. They are not hirelings, but are so many citizens assuming the public charge of fitting other citizens for citizenship, and are paid for the work as any other public functionary, out of the public fund. There is more in this than appears on the surface. When the south shall have consecrated two or three generations of her best young men and young women to the work of regenerating her people, and shall take by the hand the teacher of a negro school as heartily as that of the missionary commissioned to Gaboon, the question will be settled, the taxes will be levied and the money will be raised. This personal work is the principal factor, the money is a subordinate matter. In so far as the aid shall come from the general government, it will be destructive to this local interest. In one of the bills before the last Congress, was a clause to give no more to any State than she had herself expended the previous year, inserted at the suggestion of one of the members from one of our illiterate States, for the purpose, as he said, of putting the States upon their metal; and for this he was hotly assailed by his colleagues. His position was logical, and showed that he had a keen appreciation of the demoralizing influences hidden in the acceptance of any contribution. There was at the outset a contest among the recipients over their respective shares of the gratuity.

A careful consideration of the subject in all its bearings, has led me to the conclusion that we are not yet justified in entering upon a policy that may be intended at first to be temporary, but will in the end be perpetual; limited in amount at the outset, but assuming vast proportions as soon as the national treasury is opened wide to its demands; or that must be subversive of that self-reliance which is the pivotal centre of all true education. I am further sustained in the conclusion, when it appears that the increase of illiteracy is numerical, rather than relative. There are relatively fewer illiterate to-day than ten years ago. The increase of illiteracy is less than the increase of population. The nation is better capable of holding in solution the illiteracy now than at any period of its history. So that, over the fact of mere illiteracy there is no just cause for alarm. The real cause for alarm is the use it may be put to as an ally of the so-called "dangerous class." Illiteracy of itself is not dangerous, if it is moral. It is when it is *misled* that it impinges upon the public safety. The danger, if any, grows out of the abnormal condition of affairs at this time, and lies in the cities rather than in the country. The illiteracy we have been discussing is mostly moral, and is healthy in its moral tone, and, so long as it is kept in the country, can be easily handled.

The real danger lies in another direction. It is in the so-called "dangerous class," whose controlling element is not illiterate. It is in the large cities only that organized ignorance is possible for any length of time, and this has kept pace with, in fact grown faster than the cities themselves. The tendency of modern times is towards the cities. In 1790 only 3.3 per cent. of the population of the country was in the cities; in 1840 it became 8.5 per cent.; in 1860 it was 16.1 per cent., and in 1880 it rose to 22.5 per cent. As a rule the tone of the country is healthy, while the cities have become infected with vice and corruption. There is an old adage that man made the town but God made the country. The best blood of the cities comes from the country. Nature has her haunts in the forest and on the farm, whence are born into civic life the kings of commerce and the royal lineage of law, letters, and theology. There is a constant tramp of young footsteps from the meadows to the golden pavements of the city. Many are crowned with wealth and culture, but the most fail in their hopes. While the best blood of the city comes from the country, tending to vivify and revivify all the arteries of industry and commerce, the unsettled, the immoral, and those whose tendencies are bad, gravitate there also. These, added to the constantly increasing number of the vicious, make the problem of the government of our cities the most difficult of the age. The vice, and crime, and corruption, and squalor of our large cities are appalling. Youthful vagabonds, hardened criminals, gamblers, pickpockets, pimps, burglars, and defaulters are on the increase. These are all officered by intelligence; many of the rank and file are of rare intellect and education. An ignorant man may commit a personal crime; but only an educated man can commit organized crime. Organized ignorance is organized intelligence. The "cracksman" is a smarter man than the policeman—he is often a better man. Whole streets reek with filth and vice, and children without any moral cleanliness, savages in the midst of civilization.

Now what can be done with all this increasing, organized criminality? It is not the ignorance that makes the problem difficult, for money can bring the school books to every one of them; it is the fact that its elements know too much already; that the educated "gamin" may become the intelligent criminal; that the education may only sharpen the tools of his vicious activity. There is something the matter with his moral sense.

To a certain extent the whole land seems to be stricken with the same malady—an obtuseness of the moral sense. Whole cities are at the mercy of this dangerous class, who make the laws, hold the offices, and, like highwaymen with clubs in their hands, spoil the honest citizen of his substance. It is said legislatures are bought, jurors are bribed, judges cowed; that every man has his price, every voter his pet prejudice; that men lie easier, steal more, and sin more gracefully than ever before. Now all this is exaggerated, and the same story has been told for ages. Things are not so bad as we would be made to believe; there is as much honesty and purity as ever, but unquestionably there is more sin, for the reason that there are more people. There is at the same time a dullness of the moral sense. An embezzler is simply "short in his accounts."

Socialism, communism, labor strikes with their enforced idleness, tramps, "corners" in the market, discriminating rates in freights, "ground floors" in corporations, all are constituent elements in our civic structure, and all have their apologists and defenders. To the untutored mind the ways of them all are devious; but the moral sense of the land should be strong enough to write "vagabond and criminal" across their foreheads.

In the past it has been a comparatively easy matter to govern the nation; it governed itself. Its surplus vitality found vent in the new states, and was largely absorbed in legitimate pursuits. In the cities, now, and some of the states, we begin to crowd each other. The constable is becoming a more important functionary. The very division of labor, consequent upon the change of our industries, by which in prosperous times the laborer more easily earns his living, and in general is enabled to live better than his predecessors, is a source of trouble in times of financial distress. The laborer knows and does one thing well; and he knows and does nothing else. He stands for the single cog in the vast maze of the industrial machine, and a single jar throws him out of gear, and he is worthless and useless till the machine is reädjusted. The result is that our industrial centers are the source of great anxiety in a financial crisis, and will be more and more so as the laborer loses his power of self-restraint; loses more and more his moral sense.

The time is coming when we must choose between the policeman and this moral sense. In all ages the best policeman has been a well-regulated conscience—and this implies intelligence, combined with moral sense. It is cheaper in the long run for men to govern themselves. In a republic, its citizens must govern themselves, must be their own restraint; if not, it ceases to be. How then is this self-reliance, this self-restraint, this well-regulated conscience to be secured? Manifestly the pathway to it lies through our education. And of what shall this education consist? An education that includes only intelligence may foster crime, may sharpen its tools. Lieber appreciated the distinction fully when he declared that: "A widespread and sound education is indispensable to liberty. But it is not liberty itself, nor does it necessarily lead to it. * * * Education is almost like the alphabet it teaches. It depends upon what we use it for. Many despotic governments have found it their interest to promote popular education, and the schoolmaster alone cannot establish or maintain liberty, although he will ever be acknowledged as an indispensable assistant in the cause of modern freedom. *Liberty stands in need of character.*" Let me repeat it: *Liberty stands in need of character.* Let us write on the walls of our school-rooms, *Liberty stands in need of character.* Let us write the words on the door-posts of our habitations. What we want is character; what we must have is character. And what is character?

It is that something so subtile that laws cannot define it, nor constitutions evolve it. It exists above them both and behind them both. They exist themselves only because of character, and manhood and right. It is this intangible something that stands by the side of the pulsations of our hearts, and construes all law, and obeys justice, and right and truth; that is so sacred that in the end will stand in the presence of the Divinity, in His likeness.

Now, how is this character to be developed? The education Lieber refers to includes only the intellect. The education we want must include the moral sentiments as well. Shall the schoolmaster have nothing to do with the moral sense? We have properly remitted theology to the pulpit; did we thereby send all religion with it? and all morality to keep it company? If so, then our education is as lifeless, is as cheerless as a proposition in Euclid. The fathers did not so understand education; for in the ordinance of 1787 the charter of liberties for the great Northwest, made by them a compact between the original states and the people and the states in said territory, forever to remain unalterable, they declared that: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

They were right. Education includes religion, morality, and knowledge. A school is an organized community, as much a personal, a corporal entity as a township. It has its citizenship, and its obligations. It is there the child has his first experience in association with his fellows, with his peers. There the same struggles, and passions, and ambitions, and temptations, and the same demand for observance of law, restraint from evil, and reverence for truth as in the larger and wider community for which he is fitting himself. That is its great recommendation. It is the training school of the embryo citizen for his citizenship. As he enters its portal does he leave behind religion and morality? If so, he may well enter that wider sphere without them. No, there he acquires knowledge, but he recognizes religion and acts morality. There is the place to inspire high endeavor and patriotism, to inculcate all the graces of manhood, and develop all those virtues that adorn the good and worthy citizen. Old Massachusetts recognized that fact, and put into her constitution of 1780 the following words:

"Whereas, the encouragement of the arts and sciences and all good literature tends to the honor of God * * * it shall be the duty of the legislature in all future periods of the commonwealth to cherish the interests of literature and the sciences and all seminaries thereof, to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in their dealings, sincerity and good humor and all social affections and generous sentiments."

It is possible that in our desire to secularize our education, we have drifted away further than we intended, and further than was desirable; in much the same spirit that the old Puritans abolished Christmas and other holidays, because they savored of the "scarlet woman," and in so doing have sacrificed the joys and aspirations and sacred influences that cluster around reverence and truth and duty. If so, that may be one cause of the low tone of our morals; one reason why so many of the highly educated not only scoff at religion, but ridicule good; and the great reason why the dangerous classes are organized by an intelligence without respect for law, and by a knowledge devoid of conscience. The danger suggests the remedy. The generation now on the threshold, and the generations to follow, should be taught morality as affirmatively as arithmetic—not negatively, but affirmatively, that sin is sin,

that drunkenness and lust, and profanity and lying, and theft and murder are all wrong, and lead to a bad end; and that good order, respect for law, and temperance, frugality, honesty, purity, and reverence for the good and the true, are all elements of a perfect manhood and womanhood. Fully equipped with these, and a knowledge of his relations in life, of his obligations and duties, and with an intelligence that can make fortunes, and discern rights, the future citizen may be so orderly, so self-reliant, of such conscious rectitude that he will govern himself.

STATE AGRICULTURAL COLLEGE.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR.—I herewith submit my report of the State Agricultural College for the year 1883, as follows:

There has been considerable progress during the year in the educational work and facilities of the Institution. A Chair of Veterinary Science has been established, and a course of lectures relating to the science and practice of veterinary extends through the entire College year. In view of the attention which has been given for a number of years past to the improvement of domestic animals, and the large investment which they now represent, it is of great importance that a scientific knowledge of their care, the causes of disease, and methods of treatment should be more widely diffused. The College now gives considerable instruction in this line, for, in addition to the lectures in veterinary, there is also, as heretofore, a course of instruction in Physiology and Anatomy.

During the year the Department of Botany and Horticulture has been divided and a Professorship of Horticulture and Landscape Gardening established.

Instruction in Forestry has been made a part of the work of the Professor of Botany.

These additions to the teaching force have rendered a wider range of study possible, and accomplished in part what has long been felt to be desirable, viz.: The introduction of a number of elective studies. The following is now the

COURSE OF INSTRUCTION.

FRESHMAN YEAR.

Autumn Term.—Algebra. Ancient History—Swinton's Outlines. Rhetoric—D. J. Hill.

Spring Term.—Geometry—Olney. Drawing—Morse's Mechanical—Lectures. Agriculture—Lectures.

Summer Term.—Geometry completed. Botany—Gray's Lessons, Wood's Botanist and Florist. Rhetoric.

SOPHOMORE YEAR.

Autumn Term.—Algebra completed. Astronomy, half term. Moral Philosophy, half term. Botany.* Agriculture—Lectures.*

Spring Term.—Trigonometry, half term—Olney. Surveying, half term—Murray. Botany—Laboratory work, two hours daily. Rhetoric—A. S. Hill.

Summer Term.—Mechanics—Peck. Elementary Chemistry—Lectures, Roscoe. Agriculture—Lectures.* Landscape Gardening—Lectures,*

JUNIOR YEAR.

Autumn Term.—Mechanics completed, half term. Anatomy, half term—Lectures, Martin. Horticulture—Lectures. Organic Chemistry—Lectures. Blowpipe and Volumetric Analysis.

Spring Term.—Human and Comparative Physiology—Lectures, Martin. Analytical Chemistry—Laboratory work, three hours daily, Kedzie's Hand-Book. Horticulture—Lectures (elective instead of the third hour of chemistry).

Summer Term.—Entomology—Lectures, Packard, Cook's Apiary. English Literature—Lectures, Shaw, Chambers's Cyclopedia. Agricultural Chemistry—Lectures.

SENIOR YEAR.†

Autumn Term.—Psychology—Bascom. Chemical Physics—Atkinson's Ganot. Zoölogy, half term—Lectures. Geology, half term—Lectures. Agricultural Engineering—Lectures. Veterinary—Lectures.

Spring Term.—Logic—Jevon's Lessons, Fowler's Inductive Logic. Meteorology—Lectures. Civil Engineering—Lectures, Encyclopedia Britannica. Constitution of the United States, half term—Cooley. Political economy, half term—Chapin-Wayland. Veterinary—Lectures.

Summer Term.—Quantitative Analysis. Botany and Forestry. Agriculture, half term. Veterinary. English Literature, half term. Philosophy of History, half term. Astronomy, half term.

The text-books mentioned above are those used when the several subjects were last taught, but they are liable to be changed.

Electives.—It will be observed that the new course offers in each term of the Senior year the equivalent of five full-term studies. Candidates for a degree will be required to take at least three full-term studies, or an equivalent, but additional work cannot be taken without the especial permission of the Faculty.

Select Course.—Persons of suitable age and acquirements, who desire to pursue one or more of the branches of study more closely related to Agriculture (such as Chemistry, Botany, Animal Physiology, Apiculture) may be received for a less time than is requisite for the full course. By reference to the scheme of recitations, any person desiring select studies can ascertain whether the classes are so arranged as to permit him to pursue them.

Post-Graduate Course.—Arrangements can be made for advanced study in any department, with no fees beyond incidental expenses. No labor is required of resident graduates, but it will be furnished if desired.

The instruction given in the lecture-room is illustrated and enforced by the actual and prolonged study of plants and animals, and the various studies and experiments of the farm and garden. Students are taught to distinguish clearly between those principles and settled rules of Agriculture in accordance with which they may safely proceed, and those theories or practices which are either exploded or are as yet the proper objects of experiment and discussion only.

Manual Labor.

The College affords to its students the benefits of daily manual labor. Most of the labor is paid for, and lessens the expenses of the student. It is in part educational—varied for the illustration of the principles of science. The preservation of health, and the cultivation of a taste for agricultural pursuits, are two other important objects. Four years of study, without labor, wholly

* These studies alternate throughout the term.
† All studies elective in this year.

removed from sympathy with the laboring world, during the period of life when habits and tastes are rapidly formed, will almost inevitably produce disinclination, if not inability, to perform the work and duties of the farm. To accomplish the objects of the institution, it is evident that the student must not, in acquiring a scientific education, lose either the ability or the disposition to labor on the farm. If the farmers, then, are to be educated, they must be educated on the farm itself; and it is due to this large class of our population that facilities for improvement, second to none other in the State, be afforded them.

It is believed that the three hours' work that every student is required to perform on the farm or in the garden, besides serving to render him familiar with the use of implements and the principles of agriculture, is sufficient also to preserve habits of manual labor, and to foster a taste for agricultural pursuits. It has been found in the past sufficient to keep the students interested in every department of farm and horticultural work; and the daily labor of each one, being performed at one time, does not occupy him longer than is requisite for preserving health and a robust constitution.

Chemical Laboratory.

During the year the large addition made to the Chemical Laboratory has been completed. It includes a lecture room for 150 students, analytical rooms fitted with evaporating hoods and tables for 68 students, the Professor's private laboratory and study, and a suite of rooms for quantitative chemical analysis. It contains the chemical apparatus and stores, and apparatus for illustrating Chemical Physics; also a full set of instruments for meteorological observations, such as are used in the United States Signal Service.

State Board of Agriculture.

The members of the State Board of Agriculture and its officers, are:

President of the Board—Hon. Franklin Wells, of Constantine.

Vice-President—Hon. Thomas D. Dewey, of Owosso.

Hon. Henry G. Reynolds, of Old Mission; Hon. Wm. B. McCreery, of Flint; Hon. Elijah W. Rising of Davison Station; Hon. Henry Chamberlain, of Three Oaks.

Ex-Officio: { Governor of the State—Josiah W. Begole.
{ President of the College—Theophilus C. Abbot.

Secretary—Robert G. Baird.

Treasurer—Ephraim Longyear, of Lansing.

Faculty.

The College Faculty consists of:

Professor of Mental Philosophy and Logic—Theophilus C. Abbot, LL. D., President.

Professor of Chemistry, and Curator of the Chemical Laboratory—Robert C. Kedzie, M. A., M. D.

Professor of Zoölogy and Entomology, and Curator of the General Museum—Albert J. Cook, M. S.

Professor of Botany and Forestry, and Curator of the Botannical Museum—William J. Beal, M. S., Ph. D.

Secretary—Robert G. Baird.

Professor of Mathematics and Civil Engineering—Rolla C. Carpenter, M. S., C. E.

Professor of Practical Agriculture, and Superintendent of the Farm—Samuel Johnson.

Professor of English Language and Literature—Elias J. MacEwan, M. A.

Professor of History and Political Economy—George H. Harrower, B. A.

Professor of Horticulture, and Superintendent of Grounds—James Satterlee, M. S.

Professor of Veterinary Science—E. A. A. Grange, V. S.

Other Officers.

Assistant in Chemistry—Frank S. Kedzie, M. S.
Assistant in Mathematics—Louis G. Carpenter, M. S.
Librarian—Mrs. Mary J. C. Merrill, B. S.
Foreman of the Farm—Abram S. Birch.
Florist—Louis Knapper.
Assistant in Horticultural Experiments—James Troop, M. S.
Foreman of the Vegetable Garden—Eugene D. Millis, B. S.
Assistant Secretary—Henry W. Baird, B. S.

Number of Students.

The number of students in attendance was:

Resident graduates	3
Seniors	31
Juniors	33
Sophomores	56
Freshmen	57
Specials	5
Total	185

Degrees Conferred.

The degree of Bachelor of Science was conferred upon the following students who had completed the course of study:

William A. Bahkle, Pewamo, Ionia Co.
Henry W. Baird, Lansing, Ingham Co.
*Albert M. Bamber, Highland, Oakland Co.
Arthur C. Bird, Highland, Oakland Co.
Leslie A. Buell, Chester, Eaton Co.
Ernest P. Clark, Benton Harbor, Berrien Co.
Herbert W. Collingwood, Boston, Mass.
Henry A. Danville, Jr., Marilla, Manistee Co.
Clark H. Eldridge, White House, Lucas Co., Ohio.
Archie M. Emery, Lansing, Ingham Co.
Edward J. Fletcher, Washington, D. C.
Edgar Grimm, B. S., Corvallis, Oregon.
Daniel C. Holliday, Jr., New Orleans, Louisiana.
Osmond C. Howe, Buchanan, Berrien Co.
Wilbur F. Hoyt, Grand Rapids, Kent Co.
Willard S. Kedzie, Deerfield, Lenawee Co.
Arthur F. Kinnan, Lansing, Ingham Co.
Eugene F. Law, Portage, Kalamazoo Co.
Charles F. Lindsley, Highland, Oakland Co.
Albert W. Mather, Battle Creek, Calhoun Co.
John T. Mathews, Portland, Ionia Co.
Harry C. Nixon, Bridgeman, Berrien Co.
Frank F. Rogers, Holloway, Lenawee Co.
Allen C. Redding, Berlamont, Van Buren Co.
Edmond Schoetzow, Volinia, Cass Co.
Jeddie H. Smith, New Troy, Berrien Co.
Milton St. John, Yates, New York.
Herbert M. Weed, Lansing, Ingham Co.
Clarence M. Weed, Lansing, Ingham Co.
Sarah E. Wood, Lansing, Ingham Co.

The degree of Master of Science was conferred upon John E. Taylor, class of 1876; Charles F. Davies, Professor of Chemistry in Colorado Agricultural College, class of 1880, and Eugene Davenport, class of 1878.

*Died June 1, 1883.

MISCELLANEOUS.

The students have assumed the entire management of their own boarding. The Board of Agriculture have assigned to each of five clubs suitable apartments for those employed as cooks.

Each club appoints one of its members as steward, who makes purchases and attends to the general business of the club. The system, thus far, has given entire satisfaction, and the price of board has been about two dollars and sixty cents per week.

The College has, during the year, made some valuable additions to its apparatus and means of illustrations, and is equipped for thorough and efficient work. Those who choose to avail themselves of its advantages obtain an excellent education at a very moderate cost.

Respectfully submitted,

R. G. BAIRD,
Secretary of the State Board of Agriculture.

INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

REPORT OF THE PRINCIPAL.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In accordance with the requirements of law, I herewith submit the following report: The educational work of the institution consists of both intellectual and industrial training, the latter being considered as essential a part of the pupil's education as the former. It is probable that a very large portion of deaf-mutes who go out from the institution must gain a livelihood by some manual pursuit, and it is the aim in the course of instruction afforded to give them such an intellectual and moral training as will make good and intelligent citizens of them, and at the same time to so train them in the industries as to enable them to follow some useful occupation and thereby be self-sustaining and useful members of society.

A common school education is all that is attempted, and very few leave the institution without such a knowledge of the common branches as to be able to read and communicate understandingly, and perform ordinary business transactions with a good degree of accuracy and intelligence. During the first four years the pupils are all the time in school, after which it is equally divided between industrial labor and study. The various industries taught are cabinet-making, carpentry, baking, shoemaking, printing, sewing, and the various household duties.

Some become expert workmen, and nearly all acquire a sufficient skill in their respective occupations to pursue them successfully and make them very soon remunerative. These departments, through the efficiency of those in charge of them, I consider in a very prosperous condition.

The following are the instructors employed: Teachers—Thos. L. Brown, Willis Hubbard, John I. Buchanan, Addie A. Hendershot, Maggie T. Bennett, Phebe Wright, Frederick C. Newcomb, Minnie Tyrrell, Sidney H. Howard, Thos. Monroe, Emma Zimmerman, Emma Knight, Anna Currey, Susan Eastman, Carrie Summers. Foreman shoe shop, Thos. Page; foreman cabinet shop, Edwin Barton; foreman printing office, W. G. Bryant; of the sewing department, Maggie Ballantyne.

There have been enrolled during the year 266 pupils, graded as follows: Primary or first five grades, 197; *first year*, 41; *second year*, 51; *third year*, 32; *fourth year*, 57; *fifth year*, 18. In the grammar department 44, as follows: *Sixth year*, 14; *seventh year*, 17; *eighth year*, 12. Academic department 25, as follows: *Ninth year*, 16; *tenth year*, 11.

Pupils are entitled to remain in the institution eight years, and if they show an ability to improve by a longer residence they may be permitted to continue two years more. There are many who avail themselves of this privilege and profit by so doing.

The course of study pursued and text-books used are as follows:

PRIMARY DEPARTMENT.

FIRST GRADE.—STANDING, NEW PUPILS.

Studies.

1. Lessons in Language. These include the use of natural signs, writing, dactylology, pictures, and such other objects and symbols as will serve to convey to the mind through the eye, the more obvious conceptions of persons and things, and the expression of these conceptions in written language as an instrument of thought, and a medium of communication, one with another.
2. Writing and Drawing. These exercises include the use of the crayon, pencil, and pen.
3. Numbers. The design in these exercises is to develop in the minds of the pupils of the class the ideas of units from one to ten, as applicable to objects, and their expression in signs, written words, and figures.

Text-books.—Keep's First Lessons for the Deaf and Dumb; Spencerian copy-book, No. 2.

SECOND GRADE.—STANDING, FROM ONE TO TWO YEARS.

Studies.

1. Lessons in Language. The names of persons, things, and actions, their more obvious distinctions as to number, person, gender, case, tense, and mode, and their formation into simple sentences, in statement, description, narration, interrogation, and definition.
2. Numbers. Counting, adding, and subtracting in simple numbers, with particular reference to the written language used as well as the figures, both in conceiving through the eye and in expressing the sense of these operations.
3. Writing and Drawing.
4. Moral Lessons. God, creation, man, the soul, right and wrong, rewards and punishments.

Text-books.—Kirk and Belfield's Model arithmetic for Little Folks; Peet's Scripture Lessons, part I; Spencerian copy-book, No. 3.

THIRD GRADE.—STANDING FROM TWO TO THREE YEARS.

Studies.

1. Lessons in Language. Reading and the use of writing and the manual alphabet in recitations, the cultivation of the memory of words and ideas, and the habit of arranging them in sentences in the order of the English language instead of the inverted order of signs.
2. Arithmetic. Exercises in the development of simple numbers by the processes of addition and subtraction and in the conception and expression of these operations in written words and figures.
3. Scripture Lessons. Adam and Eve, the fall, the promise of mercy, and the history of the patriarchs.
4. Penmanship and Drawing.

Text-books.—Keep's School Stories; Little Folks' Model Arithmetic (Grube's Method); Peet's Scripture Lessons, part II; Spencerian copy-book, No. 4.

FOURTH GRADE.—STANDING, FROM TWO TO FOUR YEARS.

Studies.

1. Lessons in Language. Reading, practical grammar, and composition on familiar subjects.
2. Arithmetic. The terms and symbols and the rules and methods used in solving simple problems in multiplication and division.

3. Scripture Lessons. The ten commandments, the ancient prophets, and the coming of Christ.
4. Penmanship and drawing.
Text-books.—Robinson's Rudiments of Written Arithmetic, from page 7 to page 38; Peet's Scripture Lessons; Spencerian copy-book, No. 5.

FIFTH GRADE.—STANDING FROM THREE TO FIVE YEARS.

Studies.

1. Lessons in Language. The rudiments of grammar, including the common classifications of words; the inflections of verbs, as to time, number, person, mood, and voice; and of nouns as to number, gender, person, and case; and the form and force of the parts of speech in their relations to each other; and their positions in connected composition.
2. Arithmetic. Simple multiplication and division, including the meaning of the terms used in the statement, operation, and solution of propositions, and the rules by which the deductions are made.
3. Geography. The meaning of geographical terms; the use of globes and maps; and the study of the general outlines of the principal divisions of the earth's surface.
4. Penmanship and Drawing.
5. Scripture Lessons (weekly).
Text-books.—Robinson's Rudiments of Written Arithmetic; First Lessons in Geography; and Spencerian copy-book, No. 6; Peep of Day.

GRAMMAR DEPARTMENT.

FIRST GRADE.—STANDING FROM FOUR TO SIX YEARS.

Studies.

1. Reading. An exercise for the purpose of forming the habit of apprehending directly the sense of the words and sentences used, according to the genius of our language, and not through the medium nor in the order of natural signs.
2. Grammar and Composition. This study embraces the principles and practice of expressing thought readily and accurately in written language.
3. Arithmetic. Thorough practice in the four fundamental rules.
4. Geography. A general view of the divisions of the earth, and a more particular description of North America and the United States.
5. Scripture Lessons, weekly.
Text-books.—Kerl's First Lessons in Grammar; Robinson's Rudiments of Arithmetic, from page 7 to 73 inclusive; Harper's Introduction to Geography; International Sunday-School Lessons, weekly.

SECOND GRADE.—STANDING FROM FIVE TO SEVEN YEARS.

Studies.

1. Language. Speech and written exercises in composition on familiar subjects, as practical illustrations of the fundamental principles of our language.
2. Arithmetic. Common, decimal, and compound fractions, and reduction of compound numbers, descending and ascending.
3. Geography. A particular review of the geography of the United States with the drawing of outline maps, and the study of the prominent features of the other principal kingdoms and countries of the earth.
4. History. History of the American people from the discovery of America to the end of Washington's administration.
5. Scripture Lessons, weekly.
Text-books.—Robinson's Rudiments of Written Arithmetic, from page 39 to page 73 inclusive; Harper's Introductory Geography; Brief History of the American people; International Sunday-School Lessons.

THIRD GRADE.—STANDING FROM SIX TO NINE YEARS.

Studies.

1. English. The proper and improper use of words in composition.
2. History of the American People. From the end of Washington's administration to the present time.
3. Arithmetic. Percentage, ratio, and proportion, simple and compound.

4. Physical Geography. A detailed description of the physical features of the United States.
5. Scripture Lessons (weekly).
Text-books.—Lossing's Brief History of the American People; Robinson's Progressive Practical Arithmetic; International Sunday-School Lessons.

ACADEMIC DEPARTMENT.

FIRST GRADE.—STANDING FROM SIX TO NINE YEARS.

Studies.

1. Composition.
2. Arithmetic.
3. Book-keeping.
4. Natural Philosophy.
5. Scripture Lessons, weekly.

Text-books.—Hart's Lessons on Composition; Robinson's Higher Arithmetic; Mayhew's Book-keeping; Norton's Physics; International Sunday-School Lessons, weekly.

SECOND GRADE.—STANDING FROM SEVEN TO TEN YEARS.

Studies.

1. Composition and Rhetoric.
2. Arithmetic.
3. Anatomy, Physiology, Hygiene.
4. English Literature.
5. Scripture Lessons, weekly.

Text-books.—Hart's Composition and Rhetoric; Robinson's Higher Arithmetic, Cutter's First Book on Anatomy, Physiology, and Hygiene; Stratford's Book of Literature; International Sunday-School Lessons.

The number of deaf-mutes increases from year to year, with the increase of population, and this, with a more widely prevailing sentiment in favor of their education, brings every year an increased number to the Institution. The managers of the Institution have been aware of this, and have provided very wisely and generously more ample accommodations.

A large addition has during the present season been erected, and is now nearly complete. With these increased facilities we have no doubt that all who are entitled, and may seek admission, can be accommodated, and the work we have to do much more successfully carried on. As the length of time that pupils may remain in the Institution is limited to eight and ten years, and pupils can learn more rapidly after ten than before, it is advised that parents defer sending their children till they have attained that age. If, however, the health of the child permits, his education can not wisely be delayed much beyond this period.

Respectfully submitted,

M. T. GASS,
Principal.

FLINT, MICH., *December 31, 1883.*

MICHIGAN SCHOOL FOR THE BLIND.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The report of the Michigan School for the Blind, for the year 1883, is herewith submitted:

The year has been one of marked importance in the structural history of this Institution. An appropriation was made by the Legislature of 1883 for the erection of much needed additions to the present building capacity of the Institution. Contracts for carrying out the designs of this appropriation have been let, and two of the buildings are under process of construction. These buildings will become available in April or May, 1884. During the following summer and autumn the north wing to the present main building will be erected, also a barn and other improvements of minor importance. The present and contemplated improvements will provide accommodations for the care of 145 pupils in more comfortable quarters than those occupied at present.

Following the completion and occupancy of the new building, an increase in the pupilage of the school will be effected, which in a few years will reach the full capacity of the buildings now provided for.

The work of the school during the past year has been progressive and substantial. Sixty-eight pupils were enrolled, of whom there were 37 boys and 31 girls.

Studies in the following subjects were pursued, viz.:

First Grade—Useful Knowledge Exercise. Geometry. Natural Philosophy. Botany. Memorizing.
Second Grade.—General Exercise. Reading and Spelling. Arithmetic. Geography. Memorizing.
Third Grade.—Object Lessons. Arithmetic. Geography. Reading and Spelling. Memorizing.
Fourth Grade.—Object Lessons. Arithmetic. Reading. Spelling. General Exercise. Memorizing.

Instruction has been given in instrumental and vocal music. We aim to qualify our pupils for filling positions as music teachers, organists, etc. The work has been successful both so far as the progress of the pupils in the school is concerned, and so far as its results have appeared in the ability of our graduates to follow this occupation as a means of self-support. The services of two teachers are employed in this department, and eight pianos are kept in constant use for necessary practice. The total number of pupils in music department was 35; of this number 31 received instruction in instrumental and 25 in vocal music.

The industrial department is very much the same as indicated in former reports. The broom trade continues to be an important feature of the industrial employment of our boys. Thirty-six boys are engaged part of each day in the different operations of this trade. Our manufactured brooms find ready market in Lansing.

Our girls are taught a variety of useful operations which are calculated to make them self-helpful and useful in their homes. Plain and fancy knitting both by hand and by knitting machine, a variety of crochet and other fancy work, sewing by hand and with sewing machines are systematically taught. The girls mend their clothes, make their own beds, and care for their own rooms. In this department 28 girls received instruction.

During the year $464.10 worth of books in raised letters were added to our pupils' libraries from the Congressional Subsidy Fund. These books were printed and furnished us by the American Printing House for the Blind.

The following is the list of officers and teachers for the school year ending June 19, 1883:

Superintendent—J. F. McElroy.
Matron—Miss L. V. Abbott.
First Literary Teacher—Miss Gertrude Thayer.
Second Literary Teacher—Charles W. McCurdy.
Third Literary Teacher—Miss Louise Johnston.
Instrumental Music Teacher—Miss Jennie Van Wormer.
Vocal Music Teacher—Mrs. L. S. Roper.
Teacher of Girls' Work—Miss Gracie Judd.
Teacher of Broom-Making—M. N. Cross.

The above statement is respectfully submitted.

J. F. McELROY,
Superintendent.

STATE INDUSTRIAL HOME FOR GIRLS.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR,—I take pleasure in submitting to you the following statement of the educational department of our State Industrial Home for Girls:

PUPILS.

Number of girls in school, Sept. 30, 1882		83
Received between Sept. 30, 1882, and Sept. 30, 1883		58
Total number received since the opening of Home		143
Returned to counties	2	
Died during past year	2	4
Number belonging and under control of the Home		139
Number out on trial, by ticket of leave		11
In Croswell Cottage, or Lowest grade		28
In Clark Cottage, or Reception grade		34
In Gillespie Cottage, or Third grade		34
In Honor Cottage, or Highest grade		32
		139

The forepart of each day is spent in the industries which are chiefly domestic,—housekeeping, sewing, and knitting. The hours from 2 till 5 P. M. are spent in the school-room, with a study hour at evening in the cottage.

CLASSIFICATION.

The following is the classification, after a thorough examination of each pupil:

Arithmetic.

Number that have completed arithmetic and begun book-keeping	2
Number studying Olney's Elements of Arithmetic:	
A Division—Percentage	3
B Division—Denominate Numbers	19
C Division—Begun Fractions	19
D Division—Long Division	13
E Division—Multiplication	28

Primary Arithmetic.

A Division—Reviewing	17
B Division—Multiplication	15
C Division—Beginners	23

Geography.

Number that have completed Geography	7
In Harper's Common School Geography:	
A Division—Reviewing	15
B Division—Well advanced	18
C Division—Beginners	13
Harper's Introductory Geography:	
A Division—Review	15
B Division—Well advanced	18
C Division—Beginners	38
Number that have not begun Geography	15
Number able to read in Appleton's Fifth Reader	46
able to read in Appleton's Fourth Reader	49
able to read in Appleton's Third Reader	29
able to read in Appleton's Second Reader	8
able to read in Appleton's First Reader	7
studying Child's Book of Nature	11
studying Physiology	20
studying Scott's Small School History	33
studying Swinton's Language Primer	20
studying Swinton's Language Lessons	9
studying Text-Book of Household Economy	18

Penmanship.

Number able to write a fair letter	52
able to write a fair copy	41
able to write, but poorly	28
that have begun learning to write	18

COURSE OF STUDY.

E Class.—Appleton's First Reader. Slate Exercises.

D Class.—Appleton's Second and Third Readers. Penmanship. Drawing. Spelling. Olney's Primary Arithmetic. Harper's Introductory Geography.

C Class.—Appleton's Fourth Reader, or Hooker's Book of Nature. Penmanship. Spelling. Olney's Elementary Arithmetic. Harper's Common School Geography. Swinton's Language Primer.

B Class,—Appleton's Fifth Reader, or Scott's School History of the United States. Penmanship and Letter Writing. Finishing Geography, and Arithmetic. Swinton's Language Lessons begun.

A Class. — History. Text-Book. Household Economy. Physiology. Grammar. Book-Keeping.

OFFICERS.

Superintendent—Miss Emma A. Hall.
Physician and Assistant Superintendent—Miss E. A. Churchill, M. D.
Clerk and Book-Keeper—Miss Louise Johnson.

Superintendent's Housekeeper—Miss Laura Andrews.
Manager Clark Cottage—Miss S. V. Wood.
Teacher Clark Cottage—Miss H. B. Seaver.
Housekeeper Clark Cottage—Mrs. F. S. Rush.
Manager Honor Cottage—Miss M. Farrand.
Teacher Honor Cottage—Miss Fannie L. Hall.
Housekeeper Honor Cottage—Miss Sarah Morris.
Manager Gillespie Cottage—Miss S. M. Wells.
Teacher Gillespie Cottage—Miss Fannie Freeman.
Housekeeper Gillespie Cottage—Mrs. Martha Shankland.
Manager Croswell Cottage—Mrs. Amelia Power.
Teacher Croswell Cottage—Miss Amanda Thomas.
Housekeeper Croswell Cottage—Miss T. J. Wood.
Relief Officer—Miss Hattie Crittenden.
Sewing Teacher—Miss Clara Nichols.
Engineer—Mr. James Moreland.
Night Watchman—Mr. John Voorhes.
Hired Man—Mr. John McKinney.

Respectfully submitted,
EMMA A. HALL,
Superintendent.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.

REPORT OF THE SUPERINTENDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—I take pleasure in complying with your request for a brief report of the work of the State Public School for Dependent Children:

My brief connection with the school will not justify any extended discussion of the general system of management of such institutions. I can, therefore, at this time only refer to the present condition and work of the school.

The present number of inmates is three hundred and fifteen, ranging from three to fourteen years of age, with but few over eleven.

As this is understood to be only a temporary home for children while waiting for a *real* home in some good family, many of our children barely become interested in their school work before they are placed in homes, so that such advanced standing in their school work cannot be attained as though they remained with us for a series of years. Yet some have completed the entire course of study pursued in the school and are now proving very proficient pupils in the high schools of the State.

The great work of the school is to place children in homes throughout the State, and to care for all children properly admissible to the school.

During the year past one hundred and twenty-five children have been so placed in homes, showing something of the rapid change constantly taking place in the children.

The officers and teachers employed in the school are as follows: Superintendent, John N. Foster; Assistant Superintendent and clerk, Galen A. Merrill; teachers, Miss Ella F. Corwin, Miss Esther A. Clark, Miss Lucelia E. Staples, Miss Belle H. Throop, and Miss Sarah B. Goodman.

The average number of children in the school is about three hundred.

The general management and arrangement of the school is the same as last year, except that our schools are in session twelve months of the year. The following is the course of study:

First Primary.—Calisthenics, Singing, Geography of the School Room, Making Figures, Learning to Count, Spelling and Reading from the Chart, Model First Reader commenced, Drawing on Slates.

Second Primary.—Model First Reader, Spelling, Oral Arithmetic, Addition and Subtraction Tables, Map of Michigan, Writing on Slates, Drawing on Slates.

Third Primary.—Model Second Reader, Independent Child's Speller, Oral Arithmetic, Script-writing on Slates, Drawing on Slates, Sheldon's Object Lessons, Oral Instruction in Geography.

First Intermediate.—Model Third Reader, Spelling, Hagar's Primary Arithmetic, Drawing, Sheldon's Object Lessons, Swinton's Introductory Geography.

Second Intermediate. — Appleton's Third Reader, Swinton's Language Primer, Swinton's Introductory Geography, White's Progressive Art Studies, Intellectual Arithmetic, Spelling, Writing, Hagar's Elementary Arithmetic.

Third Intermediate.—Swinton's Language Lessons, Intellectual Arithmetic, Hooker's Child's Book of Nature, Colton's Common School Geography, Analytical Speller, Hagar's Elementary Arithmetic, Anderson's Junior Class History of the United States, White's Progressive Art Studies.

Respectfully submitted,

JOHN N. FOSTER,
Superintendent.

Coldwater, Michigan, November 1, 1883.

ADRIAN COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—I have the honor to submit the following report of Adrian College for the year ending June 22d, 1883:

The work of the College during the year has been very satisfactory. Members of the Faculty have performed their duties with fidelity, and students have demonstrated an unusual and successful interest in their work.

At the commencement in June degrees were conferred as follows:

Bachelor of Arts	8
Bachelor of Science	4
Bachelor of Philosophy	3
Bachelor of Music	7
Graduated in Normal School	5

During the last year the standard for entrance upon the college courses of study has been somewhat raised. In mathematics the student must be prepared to enter upon trigonometry, algebra, and geometry, both plane and solid, being required to enter the collegiate mathematics. Additional requirements were also added to the Latin and Greek.

Arrangements are being made to establish a course of instruction in which the aim will be to familiarize the student with the principles that underlie the formation of character. Feeling that the demand of the present age is for a culture that strengthens the moral and active part of human nature, as well as the intellectual and reflective, the authorities of the college are giving especial consideration to the question of instituting more effective and systematic methods of moral education. It is believed that more systematic and progressive methods than those in general use may be devised for assisting the student in forming and establishing character. The aim will be to bring to moral training the same continuous, orderly methods that are already made use of in the intellectual methods of the schools.

In the collegiate department, about six years ago, the Faculty so arranged the courses of study that greater freedom in the selection of studies could be enjoyed by students than is usual in colleges. It was determined that the sole requisite for entrance should be the proficiency of the student in those branches logically essential as prerequisites to the pursuit of the study desired. An acquaintance with the studies naturally preparatory to the one desired was all that should be required. This would secure that freedom of selection for the

student that would enable him so to shape his studies as to meet his individual aptitudes or prepare himself more especially for his future work. At the same time, to secure unity in the course of study pursued by those graduating, and to give appropriate significance to the degrees conferred, it was provided that a prescribed amount of work in Greek and Latin, together with enough selected studies in other departments to amount in all to 2,200 hours of class work should be required for the degree of Bachelor of Arts; that a prescribed amount of work in mathematics and the natural sciences, and enough additional to make 2,200 hours should be required for the degree of Bachelor of Science; and that the degree of Bachelor of Philosophy should be conferred when the candidate had completed the prescribed amount of study in the departments of philosophy and political science with enough additional to make 2,200 hours.

This plan has been in operation over six years, and has been found perfectly practicable, and in its results preferable to the former arbitrary system of determining the order of studies. One of the best results is that it causes the student to bring a purpose to his studies, and to see a significance in his work not realized so long as it was all arbitrarily laid out for him, without regard for his constitutional bent, or his purpose in life.

The following are the courses of instruction given during the year:*

I. CLASSICS.

I. Latin.

—Latin Grammar; Cæsar, 2 Books; Cicero, 3 Orations; Virgil's Æneid, 3 Books; Allen's Latin Prose Composition, Part II.

1. Tacitus, Life of Agricola. Three hours a week, first term. 45 hours.

—Same as for Course 1—

2. Livy, Books XXI and XXII. Three hours a week, second and third terms. 72 hours.

—Livy—

3. Plautus, The Captives. Three hours a week, first term. 45 hours.

—Plautus—

4. Horace, Odes, 2 Books; Epodes; selections from Satires and Epistles. Three hours a week, second and third terms. 72 hours.

—Ancient History; Livy; Rhetoric—

5. Quintilian, Books X and XII. Two hours a week, first term. 30 hours.

—Quintilian—

6. Cicero, De Oratore, Book I. Two hours a week, second and third terms. 48 hours.

—De Oratore; Mental Science—

7. Cicero, De Officiis, Books I and II., or Seneca's Letters. Two hours a week, first and second terms. 54 hours.

II. Greek.

—Greek Grammar; Prose Composition (Jones's Exercises—with special attention to the accents) three Books of Xenophon's Anabasis—

1. Herodotus, Books VI, VII, VIII. Three hours a week, first term. 45 hours.

—Same as for Course 1 in Greek—

2. Thucydides, Books I and IV. Three hours a week, second and third terms. 72 hours.

—Rhetoric; Herodotus—

3. Homer, six Books of the Iliad. Three hours a week, first term. 45 hours.

—Homer—

4. Sophocles, Antigone, or Œdipus Tyrannus. Three hours a week, second and third terms. 72 hours.

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* Studies printed in small type are preliminary and must be completed before beginning the course immediately below.

—Homer—

5. Demosthenes, On the Crown. Two hours a week through the year. 78 hours.

—Mental Science; Demosthenes—

6. Plato, Apology and Crito. Two hours a week, first term. 30 hours.

—Plato—

7. Æschylus, Prometheus Bound. Two hours a week, second term.

III. Hebrew.

1. Conant's Gesenius' Hebrew Grammar. Biblia Hebraica. Two hours a week through the year. 78 hours.

II. ENGLISH LANGUAGE AND LITERATURE.

—English Grammar; Analysis of the English Sentence; Punctuation; Orthography—

1. Rhetoric. Text books: Hill's Rhetoric; Gilmore's Art of Composition. Frequent practical exercises with special reference to Diction and Structure of the sentence. Two hours a week through the year. 78 hours.

—Rhetoric; General History—

2. History of English Literature. Text books: Arnold's Manual of English Literature, Taine's English Literature. Original studies of representative writers in each period, with themes. Three hours a week through the year. 117 hours.

Rhetoric—

3. Early English—Chaucer: Prologue to Canterbury Tales, and Parliament of Foules. William Langlande: Vision of Piers Plowman. One hour a week through the year. 39 hours.

—History of English Literature—

4. Study of Masterpieces. Pope's Essay on Criticism; Milton's Areopagitica; Bacon's Essays; Gray's Elegy; Bryant's Thanatopsis. One hour a week through the year. 39 hours.

—History of English Literature—

5. Study of Shakespeare. Selections from Hamlet, Merchant of Venice, Richard II, Macbeth, and Twelfth Night. One hour a week through the year. 39 hours.

—English Literature; Psychology—

6. Philosophy of Composition. Text books: Bain's Principles of Composition, and Campbell's Philosophy of Style. Lectures on the Principles of Literature. Two hours a week through the year. 78 hours.

III. MODERN LANGUAGES.

I. French.

1. Beginning French. Text-book: Duffet's French Method, Part I and selections from Part II. Three hours a week through the year. 117 hours.

—Course 1 in French—

2. French Literature. Text-book: Duffet. Two hours a week, first term. 30 hours.

—Course 2 in French—

3. Cousin's Cours de l'Histoire de la Philosophie (3 tomes). Two hours a week, second and third terms. 48 hours.

II. German.

1. Beginning German. Text-books: Otto's Grammar; Jones's Otto's German Reader. Three hours a week through the year. 117 hours.

—Course 1 in German—

2. German Plays. Text-book: Ahn's Dramatic Plays. Two hours a week, first term. 30 hours.

—Course 2 in German—

3. German Classics. Schiller's Marie Stuart, or Wilhelm Tell; Gœthe's Iphigenie. Two hours a week, second and third terms. 48 hours.

IV. MATHEMATICS.

—Higher Arithmetic; Algebra—Complete; Plane and Solid Geometry—

1. Trigonometry—Plane and Spherical. Text-book: Schuyler's Trigonometry. Three hours a week, second and third terms. 81 hours.

—Trigonometry—

2. Analytical Geometry. Text-book: Peck's Analytical Geometry. Two hours a week, first and second terms. 54 hours.

—Analytical Geometry—

3. Calculus—Differential and Integral. Text-book: Peck's Calculus. Two hours a week, first and second terms. 54 hours.

—Calculus—

4. Mechanics. Text-book: Peck's Mechanics. Three hours a week, first and second terms. 81 hours.

—Trigonometry—

5. Surveying. Text-book: Schuyler's Surveying. Three hours a week, third term. 36 hours.

—Mechanics.—

6. Astronomy—Spherical and Physical. Text-book: Norton's Astronomy. Three hours a week, first and second terms. 81 hours.

V. History.

—United States History—

1. General History. Text-book: Swinton's Outlines of History. Three hours a week, first term. 45 hours.

—General History—

2. English History. Text-book: Green's Short History of the English People. Three hours a week, second and third terms. 72 hours.

—General History—

3. History of Civilization in the Middle Ages. Text-book: Guizot. Two hours a week through the first term. 30 hours.

—English History—

4. Roman Mediæval History. Text-book: Gibbon's Decline and Fall of the Roman Empire (Selections). Two hours a week through the year. 78 hours.

VI. Political Science.

—General History—

1. Political Economy. Text-books: Bowen's Political Economy; Selections from J. S. Mill's Political Economy. Three hours a week, first term. 45 hours.

—History of Civilization—

2. Sociology. Text-books: Bagehot's Physics and Politics; Spencer's Sociology. Two hours a week, second and third terms. 48 hours.

—Political Economy—

3. International Law. Text-book: Wolsey's International Law. Three hours a week, second term. 36 hours.

VII. Philosophy.

—Rhetoric; Physiology; English Literature—

1. Psychology. Text-book: Porter's Elements of Intellectual Science, Parts I, II, and III. Three hours a week, first and second terms. 81 hours.

—Psychology—

2. Metaphysics. Lectures and Recitations. Text-books: Porter's Intellectual Science, Part IV, and Hamilton's Lectures on Metaphysics. Three hours a week, third term. 36 hours.

—Psychology—

3. Deductive Logic. Text-books: Jevon's Logic; Bain's Deductive Logic. Three hours a week, first term. 45 hours.

—Psychology; Botany, Zoology, or Physics—

4. Inductive Logic; Text-books: Fowler's Inductive Logic. Mill's System of of Logic, selections from Books III and IV. Three hours a week, second and third terms. 72 hours.

—Psychology—

5. Moral Science. Text-book: Calderwood's Moral Philosophy. Three hours a week, third term. 36 hours.

—Metaphysics—

6. History of Philosophy. Lectures and recitations. Text-book: Schwegler's History of Philosophy. Two hours a week through the year.

—Metaphysics—

7. Theism. Lectures and Recitations. Text-books: Bowne's Theism; Diman's Theistic Argument. Three hours a week, third term. 36 hours.

VIII. Physical Science.

—Elementary Philosophy; Geometry; Trigonometry—

1. Physics. Experimental lectures and recitations. Text-book: Arnot's Elements of Physics (Edited by Bain and Taylor). Three hours a week, first and second terms. 81 hours.

Course 1 in Physics—

2. Laboratory practice—including use of instruments; testing laws of Mechanics, Magnetism, and Electricity; measurements of Electricity, etc. Three hours a week, third term. 45 hours.

—Course 1 in Physics—

3. General chemistry—experimental and recitations. Text-book: Youman's Chemistry. Three hours a week, first term. 36 hours.

—General Chemistry.

4. Analytical Chemistry. Laboratory practice and recitation. Text-book: Elliott and Storer's Manual. Five hours a week, second and third terms. 72 hours.

IX. Natural History.

—Natural Philosophy—

1. Botany—Structural and Systematic. Text-book: Gray's Lessons and Field Book. Two hours a week through the year. 78 hours.

—Anatomy and Physiology—

2. General Zoölogy. Text-book: Orton's Comparative Zoölogy. Three hours a week, first term. 45 hours.

—Botany; Zoölogy—

3, Geology. Recitations and lectures. Text-book: Dana's Geology. Three hours a week, second, and two hours a week, third term. 60 hours.

X. Character-Building.

1. Lectures—Analysis of Human Nature; Elements of Conduct; Laws of Attention and Habit, as affecting Character; Selecting and Confirming Dispositions; Ideals of Character, etc. Two hours a week through the year.

REGULATIONS.

Each student may take a sufficient number of courses to amount to fifteen hours per week. More than this cannot be taken without special permission from the Faculty.

The degree of Bachelor of Arts will be conferred on the completion of 750 hours of work in the Department of Classics, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The degree of Bachelor of Science will be conferred on the completion of 750 hours of work in the Departments of Mathematics, Physical Sciences, and Natural History, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The Degree of Bachelor of Philosophy will be conferred on the completion of 750 hours of work in the Departments of English Literature, Philosophy, History, and Political Science, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The financial condition of the College may be briefly stated as follows: Value of grounds, buildings, apparatus, etc., $128,000; endowments, $100,855; debt notes, $13,152—total, $242,007. About $40,000 of the endowments are invested in securities, the remainder in notes. About 40 per cent. of the unsecured endowments are more or less irregular in their payment of interest. The total income of the college last year for current expenses was $11,000 from these sources; endowment interest, $4,000; students' tuition, etc., $5,900; contributions from churches, $1,100.

In June, 1882, a plan was proposed contemplating securing three hundred

notes of thirty dollars each, payable at the rate of ten dollars annually, for the purpose of increasing the fund for current expenses. This number has now been very nearly secured, and thus nine thousand dollars will be added to the income of the college during the next three years. Measures are being taken that will, it is hoped, result in considerable increase to the endowment fund of the college. The policy of the Board of Trustees is to keep expenses strictly within the income, and through this conservative management, accompanied by rigorous efforts looking to the enlargement of the endowment, it is believed that the college will speedily move forward to a larger and more effective usefulness.

Respectfully submitted,

D. S. STEPHENS,
President.

ALBION COLLEGE.

REPORT OF THE PRESIDENT.

Hon. H. R. GASS,
Superintendent of Public Instruction:

SIR,—I have the honor to submit the following report:

The attendance of students in Albion College during the year 1883 was sixty in excess of the attendance the year previous. The aggregate was 322.

In my report for 1882 I stated that we had inaugurated a new movement, briefly presenting the principles on which the departure was based. As many letters have been received relating to the subject, especially asking for authorities or opinions of leading educators, I take the liberty of embodying in this report for reference of teachers and others the statements or positions of some of the prominent men whose writings we have consulted:

Thomas Wyse, M. P., in a work on "Educational Reform," sharply criticises the methods which have so long prevailed in the study of language, asserting that the principles which govern in the study of our mother tongue should always be applied in learning classical languages.

Matthew Arnold, in treating on the "Higher Schools and Universities in Germany," is very explicit in his condemnation of the systems which have commonly been employed in educating the young.

Richard Quain, Fellow of the Royal Society, President of the Royal College of Surgeons, in his work on "Some Defects in General Education," tells us that the old method is a failure in preparing students for the University. He says "The quality of the scholarship of large numbers of youths from the public schools upon their arrival at the University of Oxford is shown in the evidence of the Dean of Christ Church and others quoted by the Commissioners, thus: 'At the matriculation examinations of the colleges very few can construe with accuracy a piece from an author they profess to have read. They never try them with an unseen passage. It would be useless to do so.'"

Henry Sweet, M. A., of Balliol College, Oxford, formerly President of the London Philological Society, Author of "Hand-book Phonetics," "Anglo-Saxon Reader," etc., in his "Words, Logic, and Grammar," published in the Transactions of the Philological Society, 1875-6, employs the following comparison: "Philologists have hitherto chiefly confined their attention to the most ancient languages, valuing modern languages only in as far as they retain remnants of older linguistic formations—much as if Zoölogy were to identify itself with Paleontology, and refuse to trouble itself with existing species except when it promised to throw light on the structure of extinct ones." He maintains that the languages of to-day have an importance in

themselves, in their own structure and use, and not merely because they retain something of the languages of the past, as is so commonly held.

Robert H. Quick, M. A. Trinity College, Cambridge, Master Surry County Schools, England, in calling our attention to the principle that "instruction must excite the interest of the pupils and thereby be pleasurable to them," adds: "As far as I have had the means of judging, I have found that the majority of teachers reject this principle. If you ask them why, most of them will tell you that it is impossible to make school work interesting. A large number also hold that it is not desirable. The present dullness of school work is not without its defenders. They insist on the importance of breaking in the mind to hard work. This can only be done, they say, by tasks that are repulsive to it. The school boy does not like, and ought not to like learning Latin Grammar any more than the colt should find pleasure in running round in a circle. The very fact that these things are not pleasant makes them beneficial. Perhaps a certain amount of such training may train *down* the mind and qualify it for some drudgery from which it might otherwise revolt; but if this result is attained it is attained at the sacrifice of the intellectual activity which is necessary for any higher functions.

The true system as we regard it, therefore, is in many respects an inversion of the order generally pursued. In the study of the languages we begin with the modern and follow these with the ancient. In the study of history we commence with the present century, subsequently taking up the history of preceding ages. In science we study the problem of creation in the light of the knowledge the present advanced period of thought and discovery throws upon this problem. We learn what philosophy is and after that trace out the evolution of philosophical thought. In other words, we first determine the *what*, and then look for the *why*; facts first, principles afterwards. We proceed from the known to the unknown, from the concrete to the abstract, from the near to the remote, from the simple to the complex. This is the natural order, always followed by the child in gaining knowledge through observation or experience. It is the order of the development of the race; civilization could not be evolved in any other way. It is, therefore, the scientific order, the order which divine law has established. To this order, therefore, college systems must conform, or else violate the very conditions of intellectual progress which God has implanted in the constitution of the human soul. A few quotations will show the trend of thought on this important question. First, we give some extracts from Herbert Spencer in his work on "Education."

He says, "1. That in Education we should proceed from the simple to the complex, is a truth which has always been to some extent acted upon; not professedly, indeed, nor by any means consistently. The mind grows. Like all things that grow, it progresses from the homogeneous to the heterogeneous; and a normal training system being an objective counterpart of this subjective process must exhibit the like progression.

"2. To say that our lessons ought to start from the concrete and end in the abstract, may be considered as in part a repetition of the foregoing. Nevertheless it is a maxim that needs to be stated.

"3. The genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race. Even were the order intrinsically indifferent it would facilitate education to lead the individual mind through the steps traversed by the general mind. But the order is *not* intrinsically indifferent, and hence the fundamental reason why education should be a repetition of civilization in little.

"4. One of the conclusions to which such an inquiry leads is that in each branch of instruction we should proceed from the empirical to the rational. Science is organized knowledge, and before knowledge can be organized some of it must first be possessed. Every study, therefore, should have a purely experimental introduction.

"5. A second corollary from the foregoing general principle, and one which cannot be too strenuously insisted upon is, that in education the process of self-development should be encouraged to the fullest extent.

"6. As a final test by which to judge any plan of culture should come the question, does it create a pleasurable excitement in the pupils? Experience is daily showing with greater clearness that there is always a method to be found productive of interest, even of delight, and it ever turns out that this is the method proved by all other tests to be the right one.

"That it is thoroughly practicable to carry out instruction after this fashion we can ourselves testify, having been in youth thus led to successfully solve the comparatively complex problems of perspective. And that leading teachers have been gradually tending in this direction is indicated alike in the saying of Fellenberg that 'the individual, independent activity of the pupil is of much greater importance than the ordinary busy officiousness of many who assume the office of educators;' in the opinion of Horace Mann that, 'unfortunately education among us at present consists too much in *telling*, not in *training*;' and in the remarks of M. Marcel, that 'what the learner discovers by mental exertion is better known than what is told him.'"

A. H. Sayce, Professor of Comparative Philology in the University of Oxford, tells us that "the method alike of science and of nature is to proceed from the known to the unknown, and if we are to study language to any purpose we must follow the same method.

"Instead of beginning with the extinct languages which we can know only indirectly, education should begin with those living idioms from which alone we can learn the true nature of actual speech. To have realized that all languages, whether living or dead, are at bottom the same, governed by the same general laws, and designed for the same general purposes, is to have penetrated into the secret of speech and made the study of language take its rightful place as a reliable instrument for training the mind. With a system of education like this, following, as it does, the method of nature and science, time, brains, and energy will be saved, and a truer and deeper knowledge of Latin and Greek will be gained than was ever possible upon the old plan.

"Friedlander, Bratuscheck, Ostendorf, Breymann all agree from the point of view of scientific philology in urging that the study of the classical tongues should be preceded by that of the modern ones. As Ostendorf remarks, 'a satisfactory organization of a higher system in schools is inconceivable so long as instruction in foreign languages in gymnasia and polytechnic schools of the first rank has to begin with Latin.'"

The whole question was fully discussed at a conference held under the presidency of Counselor Wiese, at Dresden, in the autumn of 1873, and answered on the side of science and reason.

Rev. F. W. Farrar, M. A., Fellow of the Royal Society, Fellow of Trinity College, Cambridge, Hon. Fellow King's College, London; also E. E. Bowen, Fellow of Trinity College, Cambridge, Assistant Master of Harrow, very emphatically condemn the usual methods of studying language, affirming that it is unnatural, inverting the true order of progress.

Dr. L. Wiese, late Privy Councilor in the Ministry of Public Instruction in

Russia, in a work translated or edited by Leonhard Schmitz, LL. D., Class Examiner in the University of London, dwells upon the call for a change, in teaching Latin and Greek in England. He tells us that the necessity of learning modern languages in early youth is now generally recognized.

C. Marcel, Knight of the Legion of Honor, author of various books on education, quoted as high authority by Herbert Spencer in his work on "The Study of Languages," published by Appleton & Co., shows the folly of studying language by the mere and exhaustive study of *words*, and tells us that like everything else it should be learned through the *ideas* it contains—much less the analysis of words to evolve the ideas, than the finding the meaning of words by the ideas embodied in the sentence. The natural order is the sentence first and the words which make up the sentence second. Subsequently, when facility of acquisition has been gained the more complete grammatical study of words and the sentence should be carried forward. It is a question of order and method.

Rev. Thomas Hill, D.D., ex-President of Harvard College, in a thoroughly systematized curriculum embodying his views, commences the study of language with French in the grammar school, following this with German and Latin and Greek in their order, in subsequent years. He fully endorses the common-sense view that would put facts before reasoning, proceeding from the simple to the complex, from the concrete to the abstract, from the *what* to the *why*.

About a year ago we introduced this new method with the lower classes and, so far as practicable, with classes which had already completed portions of the course upon the old plan. Anticipated results have been fully met. Quite a large number of young persons have resorted to the institution because of the system, and its value as a practical method is clearly seen. That which was theory twelve months ago is now shown to be based on sound philosophy. We have reason to expect results of the highest importance when classes have been carried through the entire curriculum on this plan.

Many changes in the details of our work have been made. One year has been added to the preparatory course. The studies of the Junior and Senior years have been made elective. In addition to these, provision is made for collateral research in many branches, thus introducing strictly University methods. The scope of the Conservatory of Music has been extended, supplying a "Four years' Musical Course," or a "Five years' Musical and Literary Course," as students may desire. Five teachers of instrumental music and one teacher of voice culture are now regularly employed, when two years ago but one teacher was required in the department.

The building for the Astronomical Observatory is nearly completed, and the instruments will be in place in a few weeks.

As the year 1884 is the centennial of the Methodist Episcopal Church in America—the church being organized the latter part of the year 1784—measures have been inaugurated to increase the endowment of the College. A considerable augmentation of our funds is anticipated.

All of which is respectfully submitted,

L. R. FISKE,
President.

DETROIT COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In accordance with the requirements of law, I have the honor to submit the following report of Detroit College:

The Board of Trustees is constituted as follows:

President—Rev. J. G. Walshe, S. J.

Secretary—Rev. W. T. Kinsella, S. J.

Treasurer—Rev. D. Niederkorn, S. J.

Rev. H. Moeller, S. J.

Rev. E. D. Kelly, S. J.

The members of the present Faculty are:

President—Rev. Jas. G. Walshe, S. J.

Vice-President, Professor of Logic, Metaphysics, and Ethics—Rev. Henry Moeller, S. J.

Poetry, Professor of English and Latin Literature—Rev. W. T. Kinsella, S. J.

Professor of the Natural Sciences, Higher Mathematics, and Astronomy—Mr. John A. Doyle, S. J.

English Literature and Commercial Branches—Rev. E. D. Kelly, S. J.

Instructors in the Academic Department—Messrs. J. P. DeSmedt, S. J., John J. Donoher, S. J., and Jos. H. Meuffels, S. J.

Instructor in the Commercial Department and in the German Language—Mr. A. K. Meyer, S. J.

Elementary Department, Instructor in French—Mr. P. Boyle, S. J.

The institution is now in the seventh year of its existence, and was incorporated under the general laws of Michigan on April 27, 1881, with all the privileges usually enjoyed by similar institutions of learning in the United States. It is conducted by members of the Society of Jesus. Having for its object to impart a thoroughly Christian as well as liberal education, its methods of instruction combine religion and morality with literature and science. The professors and the majority of the students are members of the Catholic Church, but pupils of all denominations are admitted.

The course of studies includes the doctrines and evidences of the Catholic religion, mental and moral Science, Astronomy, Physics, Chemistry, Mathematics, Rhetoric and English Literature, Elocution, History, Geography, Book-keeping, Arithmetic, the Latin, Greek, English, German, and French Languages. There are three Departments of Instruction, viz.: The Scientific-

Collegiate, the Academic, and the Commercial. The Academic is a three-years' course preparatory to the Scientific-Collegiate, which latter is composed of four classes: Philosophy, Rhetoric, Poetry, and Humanities, answering respectively to the Senior, Junior, Sophomore, and Freshman classes of other institutions. Diplomas of Graduation are granted only to those students of this department who have attended the lectures on Natural Sciences for at least three years, and who have given an exhibition of thorough scholarship in these branches as well as in the usual requirements of a Collegiate Course.

Those who complete the Scientific-Collegiate course receive the Degree of Bachelor of Arts. They can afterwards obtain the degree of Master of Arts by devoting one year more to the Study of Philosophy, or two years to any of the learned professions, provided that the Board of Trustees be satisfied with their proficiency and their moral conduct.

The Commercial course is completed in four years. It is intended for such as wish to prepare themselves for commercial life, affords a sound English education, etc.

The College has been steadily growing in favor with the community, as is evidenced by the constantly increasing attendance and other marks of approval. There are 200 pupils at present, of whom about three-fourths are in the Collegiate and Academic Departments.

At the last annual commencement, held on Wednesday, June 28, 1883, six young gentlemen, the first graduates of the College, received the degree of Bachelor of Arts.

The Philomathic Debating Society, composed of students of the Collegiate Department, has been doing excellent work. A new feature is its "Reading Academy" meeting bi-weekly. In addition to the minor exercises of declamation, dramatic reading, etc., there is read at each meeting a lengthy and carefully prepared essay, usually on some historical subject, followed by discussion and criticism.

Respectfully submitted,
JAS. G. WALSHE, S. J.,
President.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent Public Instruction:

SIR,—The undersigned, constituting the Board of Visitors to Detroit College for the scholastic year 1882–1883, beg, respectfully, to submit the following as their report:

The Detroit College is an incorporated Institution under the general law of Michigan, and possesses authority to confer such degrees as are granted by other institutions of the kind in the United States, similarily organized. It is in every sense a Catholic College, the professors and a majority of the students being members of the Catholic Church, although members of other denominations may become students without becoming subjected to any undue influence upon religious grounds.

The course of studies is broad and liberal, embracing a careful training in Mathematics, Greek, Latin, French, German, Rhetoric, English Composition, History, Elocution, Natural Philosophy, Chemistry; and in the graduating year especial attention is devoted to Astronomy, Ethics, Metaphysics, Logic,

and the evidences of the Catholic Religion. No boarders are received in this Institution. Students coming from other institutions are required to furnish satisfactory testimonials.

The charge for tuition is $40 per session of ten months. The session is divided into four quarters, beginning respectively on the first Monday of September, the 15th day of November, the 1st of February, and the 15th of April. No deduction is allowed for absence save in case of sickness, or of dismissal.

The standing of each student in his class is determined by monthly competitions, and by examinations. There are two examinations of all the classes every year: one at the end of January, and the other at the end of June. In each of the semi-annual examinations the several classes are examined in all the branches studied during the previous half year. Any student failing in the January examination descends to a lower class, unless he makes up the deficiency within a specified time, besides keeping up with the class in its regular work. Failure in the June examination debars a student from advancement to a higher class. Students are promoted during the session, when, by successful efforts, they have fitted themselves for a higher class; and such promotion is held to be equivalent to the honors of the previous class.

Three times a year reports are sent to the parents or guardians of the students, to inform them of the conduct and improvement of their sons or wards.

Punctual attendance is earnestly recommended. Parents are regularly informed of the non-attendance of their sons, who, in case of absence, are invariably required to bring a note of excuse to the Prefect of Studies. In order that the lessons may be prepared with proper assiduity, parents are requested to insist on their sons studying at home for two or three hours every evening. When a student is to be withdrawn from the Institution, due notice should be given to the President, or to the Prefect of Studies.

The Commencement Exercises held in Detroit, June 28th, 1883, were attended by the last mentioned of the undersigned, and he recalls with pleasure the agreeable impressions made by the efforts of the young gentlemen of the graduating class. The original addresses were of a character to reflect credit upon the speakers and to bring distinction upon this young but most successful institution. The attendance during the year was one hundred and eighty-four, and the number who received degrees on the occasion above mentioned was seven, the entire Senior class.

All of which is respectfully submitted,

JOHN VERTIN,
WM. B. MORAN,
Visitors.

DETROIT MEDICAL COLLEGE.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The Detroit Medical College has moved, since the last report, into its new building on Farmer street. While the destruction of the old Harper Hospital buildings, in one of which the College had temporary quarters, rendered the removal imperative, the change was nevertheless a desirable one. It became possible in the new location, situated as it was, a short distance from all the street railways, to make the College not only a good medical school, but the scientific center of the city as well. To this end the Detroit Scientific Association, the Medical and Library Association, the Societies for the Study of Microscopy, and other literary and scientific bodies were invited to occupy quarters in the new building. Many of them accepted the offer, and our students have thereby acquired the opportunity of studying general science, in the scientific museum, and at the meetings of these various associations. It is believed that the cultivation of a taste for general scientific work can not fail to make our pupils more proficient in their own peculiar studies.

There have matriculated during the last year 70 students, all of whom complied with the published terms of admission and either presented the necessary certificates of previous education, or passed the required examinations. Our restrictions on admission have secured a class of students of exceptionally high standing, and have rendered the work of instruction both easier and more interesting. The course of instruction has not been materially altered during the last year. The first two hours of the morning session (from 9–11) have been devoted to didactic instruction. From eleven to one the students have been kept busy in practical clinical work in Harper's and St. Mary's Hospitals. Two hours in the afternoon are occupied in lectures and the remainder of the afternoon and evening with laboratory work in the chemical and physiological laboratories, and in the dissecting-room. A new ambulance has been built, and will add a new feature to the clinical system.

There have been no important changes in the corps of teachers. They have been unusually enthusiastic and proficient, and the results of their efforts have been apparent in the progress of the class. In only one respect has there been a failure to meet the expectations of the class. The delay in the completion of the new Harper Hospital has made it difficult to carry on the usual clinical drill in that institution. This, however, is but an unpleasant result of a state of transition, and the next class will be able to appreciate

the advantages which the magnificent, new hospital will afford them for the study of disease at the bedside.

The graduates at the last commencement numbered thirteen. No one received a degree until he had submitted to an examination from the Board of Counsellors, a body chosen from among the best physicians in the State. Their approval is a sufficient guarantee of the fitness of the candidates for graduation.

At the annual election of the Board of Trustees, held in 1883, the Hon. H. P. Baldwin was re-elected President, and Philo Parsons, Secretary of the College. Drs. T. A. McGraw, H. O. Walker, and E. L. Shurley were elected as the Executive Committee.

The College grounds, buildings, and equipment are considered to be worth $25,000, on which there is a debt secured by bond and mortgage of $10,000, bearing six per cent. interest.

On Jan. 1, 1883, there were on deposit	$1,406 35
There were received from students	3,466 00
There were expended on College building	2,731 00
There were expended on running expenses	2,450 00
There were on hand, Jan. 1, 1884	60 15
There were due from students	734 00
There is still due from the Scientific Association	500 00

The College has no indebtedness except the $10,000 mentioned above, and some few bills not yet rendered.

Very respectfully,

PHILO PARSONS,

Secretary.

HILLSDALE COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In accordance with law and custom I transmit to you the following report of Hillsdale College for the last academic year:

Hillsdale College, established in 1855, is under the denominational control of the Freewill Baptists, and is managed by a Board of Trustees consisting of thirty-five members, a majority of whom must be identified with the aforesaid denomination.

FACULTY.

The Faculty consists of the President and eighteen Professors and Instructors.

During the year several important changes have occurred in the Faculty, but all vacancies have been promptly and satisfactorily filled. It is fitting to make special mention of the withdrawal from the Faculty of Prof. Ransom Dunn, D. D., who has been identified with the College from its very beginning, and served its interests with distinguished ability, fidelity, and success.

The Faculties of the various departments as at present constituted are as follows:

I. Academic Faculty.

Rev. DeWitt Clinton Durgin, D. D., President, Professor of Mental, Moral, and Political Philosophy.

Daniel Moses Fisk, A. M., Professor of Chemistry, Biology, and Geology.

Rev. John Scott Copp, A. M., Alumni Professor of Logic, Belles-lettres, and German.

Arthur Edwin Haynes, M. Ph., Fowler Professor of Mathematics and Physics.

Kingsbury Bachelder, A. M., Waldron Professor of the Latin Language and Literature.

James F. Parsons. A. M., Professor of the Greek Language and Literature.

Miss Cassie Alda Reamer, Principal of the Ladies' Department and Professor in French and History.

Frank Smith, Tutor in Mathematics.

Alexander Hamilton Hiller, Tutor in Grammar.

Clark Lincoln Herron, Tutor in Mathematics.

Stephen Benjamin Harvey, Tutor in German.
Lorenzo E. Dow, Tutor in Latin.

II. Theological Faculty.

Rev. DeWitt Clinton Durgin, D. D., President.
Rev. Ransom Dunn, D. D., Professor Emeritus of Systematic Theology.
Rev. Charles Densmore Dudley, A. M., Burr Professor of Systematic Theology.
Rev. Ashmun Thompson Sally, A. M., Professor of Sacred Literature.
Rev. John Scott Copp, A. M., Marks Instructor of Ecclesiastical History.

III. Commercial and Telegraphic Faculty.

Rev. DeWitt Clinton Durgin, D. D., President.
Alexander Campbell Rideout, LL. D., Principal of Commercial Department and Professor of Political Economy.
Warren Allen Drake, A. M., Professor of Commercial Law, Book-keeping, and Penmanship.

IV. Music Department Faculty.

Rev. DeWitt Clinton Durgin, D. D., President.
Melville Warren Chase, Professor of Instrumental Music.
Miss Carrie L. Hancock, Instructor in Vocal Music.

V. Art Department Faculty.

Rev. DeWitt Clinton Durgin, D. D., President.
George Balthazar Gardner, Professor of Painting and Drawing.

Thus it will be seen that there are five departments in active operation, and the patronage bestowed upon each, as indicated by the latest catalogue, testifies to the efficiency and value of the work accomplished.

COURSES OF STUDY.

There are four courses in the academic department, three of which extend through four years, and one, the Normal course, through two years. The classical course requires both the Latin and Greek languages, together with the studies usually required in first-class Colleges for the degree of Bachelor of Arts. In the Philosophical Course, the Latin of the Classical Course, but no Greek, is required. The Scientific Course, also, requires no Greek and but one year of Latin. The Normal Course requires two years of such studies as shall best fit the student for the work of teaching.

In the Preparatory Department there are three courses corresponding to the above full courses.

TERMS OF ADMISSION.

Candidates for admission to any department of the College must give required evidence of good moral character and approved habits. The use of intoxicating liquors and tobacco cannot be tolerated.

I. Classical Course.

The studies required for the Freshman Class are: The common English branches; Latin Grammar, including Prosody; Cæsar, four books; Cicero, six orations; Virgil's Æneid, six books; Latin Prose Composition; Greek

Grammar and Lessons; Xenophon's Anabasis, three books; Greek Prose Composition: Algebra, to Part III, Olney's Univ.; Plane Geometry; Composition and Rhetoric; United States History; Ancient History; and Natural Philosophy.

II. Philosophical Course.

The studies required for the Freshman Class are: The common English branches; Latin Grammar; Cæsar, four books; Cicero, two orations; Latin Prose Composition; Algebra, to Part III, Olney's Univ.; Plane Geometry; Composition and Rhetoric; Botany; U. S. History; Ancient History; and Natural Philosophy. Instead of Latin here required, the student may take the Greek required for admission to the Freshman Year of the Classical Course.

III. Scientific Course.

Candidates for the Freshman Class are examined in the common English branches; one year of Latin or Greek; Composition and Rhetoric; Natural Philosophy; Botany; U. S. History; and First Principles of Algebra.

DEGREES AND DIPLOMAS.

The degree of Bachelor of Arts is conferred upon graduates from the Classical Course, Bachelor of Philosophy upon graduates from the Philosophical Course, and Bachelor of Science upon graduates from the Scientific Course.

Upon Bachelors of one year's post-graduate residence and study, and upon those of three years' standing the respective Master's degrees are conferred.

Diplomas are also given to those who complete the Theological, Commercial, and the Normal Courses.

THEOLOGICAL DEPARTMENT.

Terms of Admission.

Candidates for admission to this Department must furnish evidence of good standing in some Christian Church, and must be properly qualified to pursue the studies with profit.

Those who have received the degree of A. B. will be admitted to the full Theological Course without examination. Other candidates for this course must give evidence of proficiency in the following studies: Common English branches, Composition and Rhetoric, Natural Philosophy, Physiology, Chemistry, Geology, Astronomy, Logic, Rhetoric, Mental Philosophy, Moral Philosophy, Butler's Analogy, English Literature, and Greek two years.

Those who enter the English Course must be prepared in English Grammar, Composition and Rhetoric, Geography, Arithmetic, and History of the United States.

Those who have only a Common School education should usually spend not less than three years in preparation for the Full Theological Course. Students of the English Course may study the Greek and Hebrew, so far as they may be able, under direction of the Faculty.

Any person who does not wish to enter either course of study may, on advising with the Faculty, pursue any studies taught in the school.

Expense.

Tuition is free to all persons who are members in good standing in any

evangelical denomination, and tuition is free to students in other departments of the College who are preparing for the work of the gospel ministry.

Aid.

Pecuniary assistance is furnished to students who are preparing for the ministry and are needy, and, so far as practicable, opportunities for remunerative preaching are obtained for them. The means thus provided, together with what may be earned during the vacations, are usually sufficient to support the student through the year.

Library.

This department has a valuable library, especially adapted to its wants, and a fund for its constant increase. The students in Theology have free access to the general library.

English Course.

This course embraces all the studies of the Full Course except the Ancient Languages. The Full and the English courses of study are alike after the Junior year.

Graduation.

The degree of Bachelor of Divinity is conferred on those who complete the Full Course; and a certificate of graduation is given to those who complete the English Course.

Terms and Vacations.

These are the same as those in other departments of the College. The candidates for admission are expected to be present on the first day of the Academic year.

Ministers' Institutes.

Arrangements have been made for holding a ministers' institute two weeks in the Fall term of each year of this department, under the auspices of the Western Education Society.

COMMERCIAL AND TELEGRAPHIC DEPARTMENT.

General Information.

To those seeking a commercial education unequaled advantages are now offered. No other first-class school in the United States presents to the public a better course of study, or tuition, board, and other incidental expenses at rates so low.

A fair knowledge of the common English branches is required to enter either the Commercial or Telegraphic course. Students can enter at any time.

The Commercial course can, in some cases, be completed in three months, but most students should spend from four to five months in study and practice. The Telegraphic course requires from five to eight months. Diplomas are awarded to graduates.

There will be a vacation during the summer months corresponding to that of the College proper, but classes in this department will not be interrupted by the short vacations between the terms.

Tuition.

Payable in advance, at the office of the department, by purchase of Scholarships or Admission Cards.

Scholarship for Commercial course, giving the holder the privilege of completing the course at pleasure, and reviewing without charge, including Business Penmanship	$30 00
Telegraphic course, Theoretical and Practical (sound)	35 00
Joint Commercial and Telegraphic Scholarships (sound)	55 00

Penmanship and Telegraphic Book-keeping free to Telegraphic students, one hour per day during the course.

Students entering for the Commercial or Telegraphic course are required to pay a Matriculation fee of one dollar, and Library and Reading-room tax of 50 cents for gentlemen, and 25 cents for ladies.

Tuition in Penmanship.

Twenty lessons (one hour each)	$2 00
Forty lessons (one hour each)	3 50
Sixty lessons—twelve weeks—(one hour each)	5 00
One month (constant practice)	6 00
Two months (constant practice)	10 00
Teachers' course in Practical (time unlimited)	15 00
Course in Ornamental	20 00
Commercial course and Teachers' course in Practical Penmanship (both Scholarships for unlimited time)	40 00

Scholarships are not transferable.

MUSIC DEPARTMENT.

This Department, under the direction of Prof. M. W. Chase, affords a complete course of instruction on the piano, in five grades, including also one year in Harmony. Diplomas will be given to those who complete the course.

This comprises etudes by Koehler, Czerny, Loeschhorn, Heller, Cramer, Clementi, etc.; the sonatas of Haydn, Mozart, and Beethoven, and selections from the most important modern authors. It is intended that students may be thoroughly equipped for becoming successful teachers.

Classes in vocal music are maintained throughout the Academical year, and a musical society meets weekly for the practice of first class choral music.

The interest in this Department has always been good, and is increasing.

ART DEPARTMENT.

The Art Department, under the efficient direction of Prof. Geo. B. Gardner, has for its objective point, not the mere acquirement of a power to imitate in different designs in lithography, drawings or paintings by the so-called "old masters," nor the production of machine pictures—which, though it might show more captivating results at the outset and in students' exhibitions, has never yet enhanced to any considerable extent artistic merit, but seeks to awaken, to call into activity and to strengthen true and permanent artistic qualities, by causing the student himself to grapple with the difficulties of original design at the very threshold of the study, thus causing him to think, to reason, to plan and to profit by learning of nature the secrets of design and art.

Apparatus, Laboratories, and Museum.

All departments are supplied with suitable apparatus which, in Chemistry, Physiology, Astronomy, Surveying, and like branches, is placed in the hands of students with instructions for practice, thus securing the most satisfactory and lasting results in these studies.

Instruction requiring illustrations is given in amphitheatres which afford the clearest views of charts, demonstrations, and experiments.

TheMuseum is moderately complete, and is steadily growing. Its contents are daily used in the class-room, its study being a required part of the scientific work. Laboratory Practice in Chemistry, Dissecting in Comparative Anatomy, and the preparation of Herbaria in Botany are taught.

Expenses.

College Fees:—

Tuition, to those having scholarships	Free.
Scholarship Rental, per term	from 50 cents to $1 00
Incidentals, per term (gentlemen)	3 50
Incidentals, per term (ladies)	2 25
Matriculation (paid but once)	3 00

Board.—The chief item of collegiate expense is obviously board. The statement that, in the fall of 1881, board in eleven boarding-houses and clubs averaged $1.89 per week, furnishes ground for a fair estimate for the present. In the absence of such reports for 1883, due allowance may be made for the general rise in prices of provision from the fact that the experience of the College Club for the fall of 1883 was $2.15 per week. It may be further said that board, with room, fuel, and lights, coupled with the social advantages of first-class families, is furnished for from $3.25 to $4.

Rooms.—Rooms are rented either *empty*, *half furnished* (with stove, bedstead, washstand, table, and chairs), or *fully furnished* and cared for. Empty rooms can be secured for 25 cents a week, one person (50 cents a room), and upward. Half furnished rooms from 25 cents to 40 cents, (50 cents to 80 cents a room), and upwards. Students who wish to economize should hire such rooms and bring a mattress, bedding, and carpet, if desired. Fully furnished and cared for rooms can be secured for from 75 to 40 cents, *i. e.*, $1.50 to 80 cents per room. Rooms furnished with a cooking stove for self-boarding can be secured.

College Societies.

The gentlemen have three well-sustained literary societies—the Amphictyon, Alpha Kappa Phi, and the Theadelphic. The ladies have two—the Ladies' Literary Union, and the Germanæ Sodales. These societies have separate halls finished with rare elegance.

The Beethoven Society affords excellent opportunities for practice in singing, and has a hall suited to its purposes.

Conclusion.

With a list of five hundred men and women who have graduated from its four-year courses, with a roll of more than thirteen thousand who have been instructed here, with an annual attendance of over eight hundred students, Hillsdale College need make no apology for its existence.

This report would be incomplete without a grateful acknowledgment of the

gracious results of the religious work done by the Y. M. C. A. and the Y. W. C. A. Large numbers during the year have entered upon a Christian life.

Respectfully submitted,

DEWITT C. DURGIN,
President.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The committee appointed for the year 1882–3 to visit Hillsdale College, respectfully submit the following report:

Two of our number spent a day at the institution in March, soon after the opening of the spring term. No special arrangement had been made for the visit, and we found the College in the midst of the work of organizing for the term. We found the entire number of students present in attendance at the chapel service, and an interest in the religious services was manifested which was highly commendable.

The institution is located in five buildings on a height overlooking the city of Hillsdale, and commanding a view for many miles. In these are accommodations for class and lecture rooms, library, cabinet, laboratory, society rooms, etc. Yet these accommodations are not so ample as they should be. There is pressing need of better quarters for the museum, the library, and especially the laboratory. Some of the departments suffer for want of proper appliances.

There is great need of some hall sufficiently spacious for anniversary gatherings. The society rooms are specially attractive, and the societies themselves, of which there are five, are a power for intellectual, moral, and social improvement.

The museum is not large, but steadily growing, and is well arranged for use. It ought to receive large contributions from patrons and friends.

The laboratory contains the germs of good success in its arrangements, methods, and the enthusiasm inspired in the department, but is in need of more room and more apparatus.

The library contains 7,000 volumes and is well patronized by the students, as is also the well-stocked reading room. Here again the patrons of the College could materially aid by contributions of books as well as money.

The harmony and good feeling throughout the institution are noticeable. There is also a certain freedom between students and professors, which, while it is guarded by proper restraints, has excellent results.

All the departments were seen in actual work, and your committee might mention with special commendation certain of them; but on the whole we found the College doing a work which ranks with any institution of its grade [redacted]nd facilities.

There is a tendency towards a steady increase in the number of students, and with the preparatory department the aggregate is 700. The institution enjoys an endowment of $150,000, and deserves to be commended to its friends for an endowment of at least $500,000.

Special instruction is given in Art, and in the theory and practice of busi-

ness. There is a department of Telegraphy which affords fine facilities in that direction.

The College also has a Theological department which is doing a good work; and the influence of this department is salutary on the whole school. Of the 500 graduates of the institution five per cent. became missionaries.

There are special facilities for instruction in teaching. The expenses of a student are made as low as possible, averaging only about $170 a year for all items.

The Hillsdale Herald is a weekly issue which has for its object the promotion of the work of the College.

Respectfully submitted,

JOHN ALABASTER,
I. N. DEMMON,
T. C. CHAPIN,
Visitors.

HOPE COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—My report of Hope College, for the year 1882–3, is herewith respectfully submitted:

THE COUNCIL.

Rev. Charles Scott, D. D., President of the College, *ex-officio.*
Rev. Nicholas M. Steffens, Holland, Mich.; term expires, 1884.
Rev. Peter Lepeltak, Overisel, Mich.; term expires, 1884.
Rev. Dirk Brock, Holland, Mich.; term expires, 1884.
Isaac Cappon, Esq., Holland, Mich.; term expires, 1885.
Rev. John H. Joralmon, Fairview, Ill.; term expires, 1885.
Rev. Egbert Winter, Pella, Iowa; term expires, 1885.
J. C. Benham, M. D., Hudson, N. Y.; term expires, 1886.
Rev. John H. Karsten, Oostburg, Wis.; term expires, 1886.
Rev. William Moerdyk, Milwaukee, Wis.; term expires, 1886.
Klaas Bronwer, Esq.. Grand Haven, Mich.; term expires, 1887.
Rev. John W. Beardslee, Constantine, Mich.; term expires, 1887.
Rev. Peter Moerdyk, Grand Rapids, Mich.; term expires, 1887.
Rev. Edward P. Livingston, D. D., Sioux Falls, Dakota; term expires, 1888.
Rev. Nicholas H. Dosker, Grand Rapids, Mich.; term expires, 1888.
Rev. Henry E. Dosker, Grand Haven, Mich.; term expires, 1888.
At the annual meeting, the following officers were elected:
President of the Board—Rev. Nicholas M. Steffens.
Vice-President—Rev. John W. Beardslee.
Secretary—Rev. Peter Moerdyk.
Treasurer—Isaac Cappon.
Executive Committee—Rev. Charles Scott, *ex-officio*; Rev. P. Lepeltak, Rev. Dirk Brock, Rev. N. M. Steffens, and Isaac Cappon, Esq.

The Council will meet on the last Wednesday in April next, and again on the day before Commencement, viz.: June 24, 1884.

ACADEMIC DEPARTMENT.

1. Faculty.

Rev. Charles Scott, D. D., President, Professor of Chemistry and Natural History; in charge of Mental and Moral Philosophy, History, and Christian Evidences.

Rev. T. Romeyn Beck, D. D., Secretary, Professor of Ancient Languages and Literature; in charge of Logic, and Sacred Literature.

Cornelius Doesburg, A. M., Professor of Modern Languages and Literature.

William A. Shields, A. M., Professor of the English Language and Literature, and of Rhetoric; in charge of Latin with the Freshman class.

Gerrit J. Kollen, A. M., Professor of Mathematics, Astronomy, and Natural Philosophy; in charge of Political Economy, and Civil Government.

Regular instruction is given in all the branches mentioned in the Catalogue, and the work gives full employment to the Faculty.

2. *Students in 1882–3.*

Seniors, 8; Juniors, 2; Sophomores, 4; Freshmen, 7; total, 21. The degree of A. B. was conferred upon the 8 Seniors; and the total number of graduates has reached 106.

3. *Course of Study, and Text-Books.*

These remain as last year, and reference may be made to the last Report of the Superintendent of Public Instruction, page 197. As soon as possible a regular "Scientific course" will be arranged. As will be noticed, the Sciences and Modern Languages receive a large proportion of our attention.

Preparatory Department.

1. *Faculty.*

Rev. Charles Scott, D. D., President; English History, Physiology, and Zoölogy.

Rev. T. Romeyn Beck, D. D., Greek and Mythology with the A class.

Cornelis Doesburg, A. M., Dutch, French, German, and Drawing.

William A. Shields, A. M., Secretary; English Grammar (B and A classes), Rhetoric, and Oratorical Exercises.

Gerrit J. Kollen, A. M.; Algebra, and Geometry (A class), Astronomy, Natural Philosophy, and Didactics.

Henry Boers, A. M., Assistant Professor; Orthography, Reading, Penmanship, Arithmetic, Latin, and Ancient History.

John H. Kleinheksel, Jr., A. M., Assistant Professor Geography, Grammar (D and C classes), Book-keeping, Algebra, Greek (B class), Botany, United States History, and Civil Government.

John Gilmore, Vocal Music.

Rev. N. M. Steffens, Religious Instruction.

2. *Students in 1882–3.*

A class, 16; B class, 15; C class, 21; D class, 38; unclassified, 2; total, 92, being 28 more than in 1881–82. Twenty-three were females, and over sixty entered the institution with the purpose of taking a full course. Hope is given of larger "academic" classes.

3. *Course of Study.*

Reference may again be made to page 198 of the last Report. No essential change has been made. Hereafter Latin will begin with the C class and Greek with the B.

FINANCES.

1. Contingent Fund.

Receipts:	
Balance on hand	$200 45
Interest	3,291 62
Students' fees	1,169 25
Donations	3,726 15
Other sources	277 00
Total	$8,664 47
Current Expenses:	
Salaries	$7,241 00
Meetings of Council and Treasury	206 96
Buildings and grounds	422 66
Taxes on real estate	297 13
Other expenses	496 69
Balance on hand	03
Total	$8,664 47

2. Fund for Debt.

Received for this purpose	$168 50
Paid same amount	168 50
Leaving obligations to the amount of	1,000 00

3. Permanent Fund.

Held in trust by the General Synod, (R. C. A.)	$39,009 64
Held and invested by Council	18,663 00
Endowment notes	10,276 00
Endowment money in the printing office	7,724 50
Total	$75,673 14

Besides which an "Ebenezer Fund" of $36,000, *not* under the control of council yields an income of $700—$1,000 per annum.

4. Library.

Received interest, etc	$168 77
Paid for books and periodicals	114 46
Balance on hand	$54 31

By purchase and gift 365 bound volumes have been added to the Library, and the total number of books is 5,925, besides many pamphlets. Prof. G. J. Kollen is Librarian.

5. Real Estate.

No special change has taken place in the property of the College. The campus contains eighteen acres, beautifully located. A gift of seventy-five acres within the city by Dr. A. C. Van Raalte, awaits the time when it can be sold to advantage. Other lands to the amount of over 600 acres in the vicinity are upon the market, and will in time add to the Permanent Fund.

6. *Expenses.*

There are no tuition fees. A contingent fee is charged of $5 per term, or $15 per year. The graduation fee is $5, and those who occupy rooms pay an addition of $5 per annum. Board in private families varies from $2.25 to $3.00 per week. Hence the expenses may be considered as moderate.

Conclusion.

The statistics as published by the Superintendent of Public Instruction show that the denominational schools of Michigan are doing a great and important work for the people of the State—fully as much so as the State institutions. They seek to be distinctly Christian, but to call them "Sectarian," as is so often done by way of reproach, is an abuse of terms which is felt by every denominational institution in Michigan.

Respectfully submitted,

CHARLES SCOTT,
President.

OLIVET COLLEGE.

REPORT OF THE PRESIDENT.

Hon. H. R. Gass,
Superintendent of Public Instruction:

Dear Sir,—On behalf of the trustees of Olivet College, I present the annual report touching its condition and prospects. The period covered is the Academical year of 1882–3.

Board of Trustees.

The Corporation of the College consists of twenty-five trustees, and of this body the President of the Institution is *ex-officio* the head.

The immediate care of the College belongs to these Committees and officers:

Executive Committee.—H. Q. Butterfield, O. Hosford, J. L. Daniels, F. L. Reed, A. K. Warren.

Library Committee.—H. Q. Butterfield, J. L. Daniels.

Secretary and Assistant.—Geo. W. Keyes.

Treasurer.—Henry Fralick.

Financial Agent.—Rev. W. B. Williams.

Faculty.

Rev. Horatio Q. Butterfield, D.D., President, Drury Professor of Mental and Moral Philosophy.

Rev. Henry M. Goodwin, D.D., Professor of English Literature and Art.

Rev. Oramel Hosford, A.M., Stone Professor of Astronomy and Natural Philosophy, and Instructor in Mathematics.

Rev. Joseph L. Daniels, A.M., Parsons Professor of the Greek Language and Literature, and Instructor in German.

Rev. Joseph Estabrook, A.M., Principal of the Normal Department.

Stewart Montgomery, A.M., Professor of Natural Science.

Jean Frederic Loba, A.M., Professor of Rhetoric.

Alexander Tison, A.M., Rutan Professor of the Latin Language and Literature.

J. Henry Smith, Professor of Music.

Mrs. Olive M. Young, Teacher of Piano, Voice Culture, and Singing.

Hamilton King, A.M., Principal of the Preparatory Department.

Mrs. Abba C. Hamilton, Principal of the Ladies' Department.

Miss Cornelia P. Dwight, Instructor in Mathematics and History.

Miss M. Myra Manley, Instructor in Painting and Drawing.

James Fairman, A.M., Lecturer on Art.
Alexander Tison, A.M., Librarian.

SUMMARY OF STUDENTS FOR 1882.

College:		
Classical Course	38	
Scientific Course	25	
Ladies' Course	43	
		106
Preparatory:		
Classical Course	45	
Ladies' Course	34	
		79
Normal Course		125
Art Department		72
Conservatory of Music		65
		447
Deduct for names inserted twice		97
Total		350

COURSE OF STUDY IN COLLEGE.

CLASSICAL COURSE.

Freshman Year.

First Term.—Livy. History of Rome. Homer's Iliad and Odyssey. Greek Prose Composition. Greek Grammar. Algebra completed.

Second Term.—Cicero de Senectute. Latin Prose Composition. History of Greece. Herodotus and Thucydides. Geometry completed.

Third Term.—Horace—Odes. Memorabilia of Socrates. History of Greece. Trigonometry.

Sophomore Year.

First Term.—Horace—Epistles, Satires, and Ars Poetica. Sophocles—Œdipus Tyrannus. Analytical Geometry.—*Loomis.*

Second Term.—Tacitus. Juvenal. Plato. Rhetoric.

Third Term.—Platus. Demosthenes—De Corona. Surveying,—*Loomis;* or Botany.

Junior Year.

First Term.—German.—*Whitney's Grammar.* French. Logic. Anatomy and Physiology.

Second Term.—German. French. Chemistry, with Lectures. Natural Philosophy—Mechanics and Hydrostatics.—*Snell's Olmsted.*

Third Term.—German, or Latin, or Greek. French. Geology, with Lectures. Natural Philosophy—Pneumatics and Optics.

Senior Year.

First Term.—English Literature. Mental Philosophy. Astronomy.—*Snell's Olmsted.*

Second Term.—Mental Philosophy. Guizot's History of Civilization in Europe. Political Economy. Art. English Literature.

Third Term.—Moral Philosophy. Lieber on Civil Liberty. Evidences of Christianity, with Lectures.

Lessons in the English Bible, or Greek Testament, compositions, declamations, and extemporaneous discussions, weekly, throughout the course.

Option between two or more studies is allowed at various points in the course.—During Junior Year, the student may select three of the four studies specified, but must complete each study begun.

Candidates for admission to the Freshman class who have pursued their prepara-

tory studies elsewhere are examined in the following books and subjects, or their equivalents:

Latin Grammar, including Prosody.
Cæsar, two books.
Cicero, seven orations.
Virgil, three Bucolics, and six books of the Æneid.
Arnold's Latin Prose Composition, to the Passive Voice.
Smith's Smaller History of Greece, and of Rome.
Greek Grammar, including Prosody.
Xenophon, Anabasis, three books.
Homer,* Iliad, two books.
Higher Arithmetic, including the Metric System.
Loomis's Algebra, through Quadratic Equations.
Loomis's Geometry, four books.
English Grammar and Geography.

All candidates for advanced standing in this and the following courses are examined, in addition to the preparatory studies, in those already pursued by the class which they propose to enter.

SCIENTIFIC COURSE.

Freshman Year.

First Term.—Algebra completed. Mediæval History. French Language. Free-hand Drawing.
Second Term.—Geometry completed. French. Modern History.
Third Term.—Trigonometry.—*Loomis.* French. Botany.—*Gray.*

Sophomore Year.

First Term.—Analytical Geometry.—*Loomis.* Botany, (continued). Physical Geography.
Second Term.—Chemistry, with Lectures. Rhetoric. Mineralogy, or Calculus.
Third Term.—Chemistry. Surveying.—*Loomis.* Constitutional History.

Junior Year.

First Term.—German.—*Whitney's Grammar.* Perspective. Logic. Anatomy and Physiology.
Second Term.—Natural Philosophy—Mechanics and Hydrostatics.—*Snell's Olmsted.* Zoölogy. German.
Third Term.—Natural Philosophy—Pneumatics and Optics. German. Geology.

Senior Year.

First Term.—English Literature. Astronomy.—*Snell's Olmsted.* Mental Philosophy.
Second Term.—English Literature. Mental Philosophy. Guizot's History of Civilization in Europe. Political Economy. Art.
Third Term.—Evidences of Christianity, with Lectures. Moral Philosophy. Lieber on Civil Liberty.

The Latin or Greek of the College Course will be accepted in lieu of the Mathematics in the above course beyond the Freshman year.

Lessons in the Bible, compositions, declamations, and extemporaneous discussions, weekly, through the course.

Candidates for admission to the Freshman class of this department must sustain a satisfactory examination in English Grammar and Analysis, Arithmetic, including the Metric System, Algebra through Quadratic Equations, four books of Loomis's Geometry, History of the United States, and Geography.

LADIES' COURSE.

First Year.

First Term.—Cicero's Orations.—*Chase and Stuart.* Algebra completed. Physical Geography.
Second Term.—Cicero's Orations. Modern History. Geometry completed.
Third Term.— Cicero's Orations. Constitutional History, or Trigonometry. —*Loomis.* Latin Prose Composition.

*In place of the Homer, the last six books of Virgil's Æneid or 2,000 lines of Ovid will be accepted.

Second Year.

First Term.—French Language. Analytical Geometry, or History of Rome. Virgil's Æneid. Latin Prosody.
Second Term.—Chemistry, or Calculus, or Mineralogy. French. Virgil's Æneid.
Third Term.—French. Botany or Chemistry. Virgil's Æneid.

Third Year.

First Term—German.—*Whitney's Grammar.* Anatomy and Physiology. Logic.
Second Term.—German. Rhetoric. Natural Philosophy—Mechanics, or Zoölogy, or Greek History.
Third Term.—Natural Philosophy—Pneumatics and Optics. German. Geology.

Fourth Year.

First Term.—English Literature. Mental Philosophy. Astronomy.
Second Term.—Mental Philosophy. Guizot's History of Civilization in Europe. Political Economy. Art. English Literature.
Third Term.—Moral Philosophy. Evidences of Christianity, with Lectures. Lieber on Civil Liberty.
For some of the above studies, students may, at the option of the Faculty, substitute Music, or advanced studies in the other courses.
Lessons in the Bible and Exercises in English Composition, weekly, during the course.

Candidates for admission to the first year of this course are examined in English Grammar and Analysis, Higher Arithmetic, including the Metric System, Algebra through Quadratic Equations, four books of Loomis's Geometry, Latin Grammar, Latin Reader, Cæsar, History of the United States, and Geography.

Course of Study in Preparatory Department.

CLASSICAL COURSE.

Junior Year.

First Term.—Latin Grammar continued through the Course. Latin Lessons. Arithmetic.—*Olney.* English Grammar and Analysis.
Second Term.—Latin Lessons, and Cæsar. Arithmetic. English Grammar and Analysis. Book-keeping.
Third Term.—Cæsar.—*Chase and Stuart.* History of the United States. Civil Government.

Middle Year.

First Term.—Cicero's Orations.—*Chase and Stuart.* Greek Grammar continued through the course.—*Goodwin.* Greek Lessons.—*White.* History of Rome.
Second Term.—Cicero's Orations. Greek Lessons and Anabasis. History of Greece.
Third Term.—Cicero's Orations. Latin Prose Composition. Xenophon's Anabasis.

Senior Year.

First Term.—Virgil's Æneid. Latin Prosody. Algebra.—*Loomis.* Greek Prose Composition. Xenophon's Anabasis.
Second Term.—Virgil's Æneid. Algebra through Quadratic Equations. Homer's Iliad. Xenophon's Anabasis.
Third Term.—Virgil's Æneid. Homer's Iliad. Geometry.—*Loomis.*
Lessons in the Bible and Exercises in Elocution and Composition throughout the course.
The course of study and instruction defined above is designed thoroughly to prepare students for admission to the College department of this institution, or to any other College in the country.
All candidates for advanced standing in this course are examined in the studies already pursued by the class they propose to enter.
Classes commencing the study of Latin are formed twice in each year—at the beginning of the Fall and Winter Terms.

COURSE OF STUDY IN NORMAL DEPARTMENT.

ELEMENTARY COURSE. (Two Years).

First Year.

First Term.—English Grammar. Arithmetic. Reading and Orthography. Algebra. Drawing and Vocal Music,
Second Term.—Algebra. English Grammar. Book-keeping, Geography and Penmanship.
Third Term—United States History. Elementary Methods. Civil Government.

Second Year.

First Term.—Algebra. Mediæval History. Physiology.
Second Term.—Principles of Education and Methods. Zoölogy. Natural Philosophy.
Third Term.—Elements of Mental Philosophy and School Management. Geometry (Plane). Botany.

FULL ENGLISH COURSE. (Three Years).

One year's study in addition to the requirements of the Elementary Course.
First Term.—English Literature. Mental Philosophy. Logic.
Second Term.—Geometry. Rhetoric. Chemistry.
Third Term.—Advanced Professional Instruction (Lectures). Geology. Moral Science.

LANGUAGE COURSES. (Four Years).

First Year.

First Term.—Latin. English Grammar. Arithmetic. Vocal Music and Drawing.
Second Term.—Latin. Arithmetic. English Grammar. Geography.
Third Term.—Latin. United States History. Civil Government.
The first year of the Modern Language Course will be identical with first year of the Elementary Course.

Second Year.

First Term.—Latin, or German. Greek, or Mediæval History. Algebra.
Second Term.—Latin, or German. Greek, or Algebra. Book-keeping.
Third Term.—Latin, or German. Greek. Vocal Music. Geometry.

Third Year.

First Term.—Latin, or Geometry. Greek, or French. English Literature.
Second Term.—Latin, or Rhetoric. Greek, or French. Natural Philosophy.
Third Term.—Latin, or Perspective Drawing. Greek, or French. Botany.

Fourth Year.

First Term.—Latin, or Physiology. Greek, or Perspective Drawing. Mental Philosophy.
Second Term.—Political Economy. Chemistry. Moral Philosophy and Logic.
Third Term.—Evidences of Christianity. Essays on Educational Topics. Advanced Professional Instruction.
Lessons in the Bible, Composition, Declamations, and Discussions weekly, throughout all the courses.
The professional instruction in Reading and Elocution, and the reviews in the common branches, will be conducted by the Principal of the Normal Department. The advanced studies will be pursued under the instruction of the College Professors in their respective departments.
A Class will be organized in the Fall and Spring terms for the benefit of those about to teach. It will last half the term
Those who complete the Elementary Course will receive a certificate signed by the President of the College and the Principal of the Normal Department.
Those who complete any of the full courses will receive a Normal Diploma.

ART DEPARTMENT.

The Course of study in Art has for its object to cultivate a taste for the beautiful by affording the pupils lectures upon its theories and principles, by

teaching them to study form and color in nature and by making them acquainted with objects of Art. The lectures are given by Col. James Fairman, of New York. The Course in Art is completed in connection with a four years' course in College; but, if made a specialty, it can be completed in two years. The Art Room is furnished with all necessary materials.

Michigan Conservatory of Music.

This Conservatory offers the finest advantages for the study of Music—Instrumental, Vocal, and Theoretical—either exclusively or with other studies. The methods of instruction are similar to those of the best Conservatories in this country and Europe. The course of study is comprehensive and thorough, being arranged with a view to maintain a high standard of musical taste. The aim of the management is to secure a complete mastery of all branches which are undertaken by the student, rather than to give a superficial knowledge of a few pieces. A real education of the musical faculties is accomplished, rather than a training in styles which are to be blindly imitated by the pupil.

Instruction is given in playing the piano, organ, and cabinet organ; in vocal culture; in glee, chorus and solo singing; and in all the branches of the theory of Music.

Degrees and Diplomas.

The degree of Bachelor of Arts is conferred upon the graduates from the Classical Course, and that of Bachelor of Science upon the graduates from the Scientific Course.

The degrees of Master of Arts and of Master of Science are conferred upon Bachelors of three or more years' standing who have been engaged in literary or scientific pursuits, and have sustained a good moral character.

Diplomas certifying the successful completion of the prescribed course of study are given to the graduates from the Ladies' course, and Certificates or Diplomas to the graduates from the Normal Department.

The Palmer Museum.

The Palmer Museum of Paleontology contains the valuable collection known as the "Ward Series of Casts of Fossils," which, for educational purposes, are equal in value to the originals. These, together with the large collection of fossils, minerals, and typical rocks, belonging to the Brown Cabinet, illustrate, in a very full and satisfactory manner, the sciences of Geology, Paleontology, and Mineralogy.

The Brown Cabinet.

This collection has been appraised by experts at $18,000; and three-fourths of this sum is a gift from Rev. Dr. William B. Brown, of New York. The Cabinet embraces more than 50,000 specimens; and they cast light upon three departments in Natural Science.

The Fossils are numerous and valuable.

The collection of Minerals is rich and full, constituting three-fifths of all found on Prof. Dana's list.

The shells are most nearly complete scientifically. Prof. Martin, of the University of New York, says of them that they illustrate the conchology of the globe.

Library and Reading-Room.

The College Library contains about 10,000 well-selected books and a large number of unbound pamphlets. Large additions are regularly made to its numbers by purchase and by gift. It is classified and arranged according to the Amherst System. Each student is allowed to take two books, and to retain them for two weeks.

In connection with the Library is a Reading-Room, well supplied with the leading journals of news, politics, religion, science, literature, and art.

Religious Culture.

All students are required to attend weekly exercises for the study of the Bible. These exercises generally accompany the Sunday-school at the College Church.

All students are required to attend devotional exercises daily in the College Chapel, and public religious worship twice on Sunday. Unless special request is made to the contrary by parents or guardians, all students are required to attend public worship at the College Church.

The students also sustain two organizations for religious and philanthropic work, entitled the Young Men's and the Young Women's Christian Associations. They maintain weekly religious meetings, and conduct Sunday-schools in the neighborhood of the College.

Necessary Expenses.

The following may be considered a near estimate of the necessary expenses of a student for an average term of thirteen weeks. It is made upon the supposition that two students occupy the same room:

Tuition	from	$5 00	to	$7 00
Incidentals	from	3 00	to	3 00
Room rent in College	from	2 50	to	3 75
Fuel and lights	from	1 85	to	3 00
Washing	from	3 25	to	7 00
Books	from	3 00	to	5 00
Board	from	20 00	to	32 50
Total	from	$38 60	to	$61 25

The following is an estimate of the necessary college expenses of a student in the Ladies' Course for a term of thirteen weeks:

Tuition	from	$5 00	to	$7 00
Incidentals	from	3 00	to	3 00
Books	from	3 00	to	5 00
Washing	from	5 00	to	8 00
Board in Shipherd Hall	from	42 90	to	52 00
Total	from	$58 90	to	$75 00

Expenses in Music.

Piano, Organ, or Singing.

Classes of two pupils, twenty-two lessons, a term, each pupil	$12 00
Classes of three pupils, twenty-two lessons, a term, each pupil	10 00
Private instruction, twenty-two lessons, a term	18 00
Private instruction, eleven lessons, a term	10 00

Theory of Music, Notation, Harmony, Etc.

In classes, twenty-two lessons, a term	$5 00
Use of piano for one hour a day, a term	3 00
Use of cabinet organ for one hour a day, a term	2 50
Use of pipe organ for one hour a day, a term	3 00
Blowing pipe organ, each hour	10

Aid to Students.

Deserving young men who are preparing for the ministry may have their tuition remitted.

Such young men in the Collegiate Classical Course can ordinarily receive $25 a term from the American College and Educational Society.

Students under the care of the Presbytery receive aid from the Board of Education of the Presbyterian church.

Tuition is remitted to the daughters of home and foreign missionaries. The income of the Carter Fund is bestowed upon worthy young ladies who need assistance. *No worthy student is allowed to leave college for lack of means.*

The past year has been one of real prosperity. The number of students enrolled is larger than it has been for ten years. The debt has been reduced to less than $6,500, and some $20,000 have gone into permanent improvements. Shipherd Hall has been rebuilt, and the new structure is in all respects better for college uses than the old. It has been enlarged by the addition of a substantial brick building, sixty-five by forty feet, containing a large dining hall, kitchen, laundry, and good rooms in the second story for fifteen young ladies. The whole building accommodates the Principal, her assistant, the Matron, and seventy-five students.

The income of the fund ($10,000) established by the late Mrs. Lucy E. Tuttle, of Guilford, Conn., begins to tell upon the library. Eighteen hundred and eighty-four volumes, the largest increase any year has seen, were added during the last twelve months. The total is now 11,000 volumes. There is a prospect that this fund may soon be largely increased, and in that case we may look for an annual increment of 2,500 volumes.

This rapid increase of the library has moved the Trustees to take steps for a building. A building committee has been appointed, and plans are already under discussion.

Work has been resumed upon the Science building, and it is expected it will be finished before next commencement. The Palmer Museum and the Brown Cabinet will then be safely housed and properly exhibited.

The Faculty has been strengthened by the accession of Prof. J. F. Loba, a brilliant scholar, who was graduated here some ten years ago. He brings to the chair of Rhetoric great enthusiasm. The College loses the services of

Prof. Alexander Tison, who has for the last five years, in the chair of Latin, illustrated thorough scholarship and great ability to teach. It is with great regret that his colleagues have parted with him. At this writing, however, the College is felicitating herself upon having secured Prof. Allen W. Gould to fill the vacancy created by Prof. Tison's resignation. Prof. Gould was graduated among the highest honor men at Harvard University in 1872. He has studied one year in Germany. He has been five years Tutor in Latin at Harvard and two years Instructor in Latin at Williams. These facts warrant the presumption that he is admirably fitted for his position, and that fact he is daily demonstrating in the class-room to the satisfaction of all.

Respectfully submitted,

HORATIO Q. BUTTERFIELD,

President.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—Two of the three members of the Committee appointed to visit officially Olivet College, have performed that duty and submit the following:

The first named of the undersigned spent an afternoon and a morning at Olivet, several weeks before Commencement; the second named spent Commencement week there—visiting and inspecting the grounds and buildings, conversing with officers and instructors, attending recitations, Commencement exercises, literary and religious meetings, etc. Besides the public exercises, the class rooms of the various professors and teachers were visited and careful notice taken of the mode of instruction, apparent qualification of instructors, proficiency of students, etc. So far as your Committee felt capable of judging, everything connected with the practical every day work of class instruction is faithfully attended to at Olivet. The professors are evidently, as instructors, of a high grade; the students, as a body, earnest and conscientious in their work.

The general location and surroundings of the College are most desirable as regards physical health, and quiet for study. At the same time your Committee would be glad to hear that Olivet was made somewhat *more accessible* with reference to the general outside world. And of this we believe there is some better prospect.

The Library deserves special mention. It is no doubt one of the best libraries in the State. The supply of Periodical Literature—in the way of magazines and papers—is large and varied, affording to the students rare advantages of this kind. A larger library building, with improved accommodations, is a want that is seriously and increasingly felt. There is equal necessity for better accommodation for the valuable Brown Cabinet, comprising some 50,000 specimens.

The house-keeping arrangements in the new brick building (Shipherd Hall) attracted the notice of your Committee. These seem to be on a very generous scale and in every way most convenient.

The efforts and the progress at Olivet in the direction of a truly Christian education for our youth (of both sexes) and the religious atmosphere that pervades all the departments, elicited the special approbation of the Committee.

The Committee would suggest some increased facilities in the important matter of *physical* exercise and culture.

Evidently Olivet College holds a prominent and important place in the Educational System of Michigan, and, in the language of the report of a former Committee, "we heartily commend it to the patronage of the people."

Respectfully submitted,

CLARENCE EDDY,
E. C. THOMPSON,
WILLIAM BALL.

August 1st, 1883.

MICHIGAN MILITARY ACADEMY.

REPORT OF THE SUPERINTENDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In conformity to the laws of the State of Michigan, I beg to submit the following report of the Michigan Military Academy, for the year 1882–3:

The past year has been marked by a greater degree of prosperity than any year since the organization of the Academy.

Our enrollment of Cadets during the year was one hundred and thirty-eight. Average attendance about one hundred.

At our late Commencement in June thirteen graduated in the various courses.

It is a noteworthy fact that of the forty graduates of this institution since its beginning in 1877, nearly one half have entered the State University, and have passed, or are passing an honorable course in that institution.

The present Academic year has been entered upon with a smaller enrollment of students than last year, in consequence of the operation of the new regulation limiting the age of entrance to fourteen years and over; but while the numbers are not quite so great the grading of the classes is much improved, and a better opportunity is afforded to give attention to College preparatory work. The teaching force of the Academy has at the same time been increased by the addition of one Professor, so that more time can now be devoted to personal effort on the part of the Faculty in promoting the interests of the cadets.

The great advantage of the military system in promoting the health and physical development of the students is demonstrated by the fact that among so many sickness is a rare occurrence, notwithstanding the certainty of some entering with a delicate constitution and in infirm health. In many such cases the health is visibly improved if not entirely restored.

As a test case, twenty cadets were taken promiscuously and their weights and measurements accurately taken on the 25th of September and carefully noted, and again on the 18th of November, leaving an interval of eight weeks, with the following results: A gain on the whole twenty of fifty pounds, or an average gain of two and a half pounds each. Of the twenty, in only one case did a decrease occur and that of only one pound.

In measurement of chest, arm, and fore-arm, with power of expansion, which, with weight, height, etc., are systematically taken and noted, similar development is reported. And no reasonable doubt can be entertained of the

beneficial effects of the system of exercise and training adopted on mental development and vigor equal to the physical as here shown.

Four of the students of this Academy have been successful in receiving appointments to West Point; one of these in a late competition at Kalamazoo with twelve competitors was the successful one, while reports from others who have entered into business or professional life are equally favorable.

The moral tone of the institution is very encouraging. Delinquencies of a serious kind rarely occur. Truth, honesty, purity of speech, gentlemanly conduct in the intercourse of the cadets with the Faculty and the officers, and with one another, is the rule; the opposite the rare exception. The demerits arise from carelessness rather than from perversity or contumacy.

Respectfully submitted,

J. SUMNER ROGERS,
Superintendent.

Orchard Lake, Mich., Nov. 30, 1883.

MICHIGAN FEMALE SEMINARY.

REPORT OF A VISITOR.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—It is with pleasure that the undersigned, by appointment, visitor to the Michigan Female Seminary, submits the following report:

The Seminary is delightfully situated on a healthy and commanding eminence overlooking Kalamazoo. It is under the care and management of a most genial and zealous Principal, who seems to have the success of the Seminary at heart.

The students were enthusiastic in their work, as was shown by their promptness in the recitation room, their activity while about their household duties, and their cheerfulness in their own rooms. They appeared to be devotedly attached to their teachers, thus reflecting the care and solicitude which the faculty are constantly having for them.

The happy freedom from restraint when in the presence of the teachers, showed the young girls were in a home rather than in a mere boarding school. Those who attend this institution are surrounded throughout their entire seminary course with a moral training and a home influence which is particularly desirable.

I visited several classes and found an earnest and studious spirit pervading everywhere. One recitation in particular, the study of the Bible, conducted by the Principal, will always be remembered. It showed more clearly, perhaps, than anywhere else, the religious—though not sectarian—training which each student has while in the Seminary. The housework is almost entirely done by the girls, under the direction of an efficient matron. So domestic duties and labors form a part of their instruction.

Although this school is superior to others of the same grade in many respects, still the Christian home influence and teaching found here should form its strongest recommendation for public patronage.

Respectfully,
MRS. L. R. STOWELL.

ANN ARBOR, MICH., *Jan. 15, 1884.*

SOMERVILLE SCHOOL.

REPORT OF THE SUPERINTENDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—I have the honor to submit herewith my report for Somerville School for the year 1883:

Under the general department of literature there are three special departments provided: (1) Belles Lettres, (2) College Preparatory or Academic, (3) Primary.

The studies in the "Belles Lettres" department are adapted to advance students, and embrace a period of two years. The satisfactory completion of the prescribed studies in this department will be required of all candidates for the "Full Somerville Course" diploma. The aim here is to bring the student into close and appreciative relations with the masterpieces in the world's literature, either through a study of these productions in the languages in which they were first given to the world or through the medium of the most desirable translations; to awaken and maintain, by critical and earnest study of our own English tongue and its vast riches of literature, a deeper regard in the mind of the student for the wealth of solid thought and linguistic power of the English language. The importance and reasonableness of an effort to obtain a thorough knowledge of the resources of English and American Literature will be constantly and faithfully held before the student. Only such students will be admitted to the Belles Lettres department (with graduation in view) as shall have first obtained a diploma in the College Preparatory, or shall have shown, through careful examination, an equivalent. Diplomas from those high schools of the State that are approved by the University Committees will, however, be received in place of such examination. Selected work in this department may be pursued by those students so desiring, but such students will not be regarded as candidates for the "Full Somerville Course."

In the "College Preparatory" department are embraced the following distinct courses: (1) Classical, (2) English, (3) Scientific, (4) Latin. The studies in this department embrace a period of four years, to correspond as nearly as possible with the work of the approved High Schools of the State. Requirements for graduation in this department are the same as those for unconditional admission to the University of Michigan, the status of the school to be determined by examinations conducted by Official Visiting Committees statedly appointed by the highest educational authorities in the State.

Such students will be admitted to the College Preparatory department as shall be found upon careful examination to be fully prepared for entrance upon its work.

The Primary Department of the School has been introduced only as a temporary convenience, to be discontinued as soon as the demands of the other departments seem to require it.

In the Department of Art especial care has been taken to secure the coöperation of skilled talent. Painting in oils and water colors, pencil drawing, and crayon work are carefully taught. Studies from choice models, as well as from nature, are included in this course. Attendance upon courses of lectures on the Historical Development of the Sculptural and Pictorial Arts will be obligatory upon all the regular Art students.

A new Art Room, designed for this express purpose, has just been added to the conveniences of the School. It is 25 by 50 feet in floor area, and with a height (in the central portions) of 20 feet. It is furnished with a large adjustable sky-light, as well as ample windows on the north, east, and west sides.

In the Department of Music every available advantage is offered for improvement of voice and instrumental execution. Beside the ordinary individual instruction, exercises in chorus singing are given in two divisions. To give pupils ease and confidence in playing and singing before others, musical rehearsals are given monthly in the school parlors. Students are graduated from this department on their completion of the regular Musical Course.

The Department of Industrial Art, in several of its branches, will be regularly opened as soon as practicable, and developed as circumstances may determine.

It has been the aim of the Management to make Somerville a "Home School," that is, to model it upon the home life plan as nearly as possible. The different rooms of the building, as well as the hours for study, recitation, exercise, etc., are so arranged as to accord with and further this "Home" idea.

"A Thoroughly Cultured Woman" is the motto of the School. Careful attention is given to social culture. By this we do not mean the development of "society women," but rather that culture which will enable them to adorn and benefit that society in which they are destined to move. Hence the art of conversation, dining-room etiquette, ease and grace of manner, and general instruction concerning the amenities of life are not only recognized but emphasized. With the same object in view—as well as for proper and needed relaxation—occasional social receptions are held in the School parlors.

The health and physical culture of the students have been carefully considered. One-half hour is devoted each day to gymnastic drill under regularly appointed and practiced leaders, under the Dio Lewis system. Ample opportunities are afforded for healthful out-door exercise, and the young ladies are required to take a certain amount of exercise each day In addition to these practical methods, the theory is taught by means of health talks.

As to the general spirit of the Somerville teaching, especially as to character and moral conduct, we would say, that each student is taught to live for a purpose; to have a part to act and act it well; that one that does no good gets no good; that the only life worth living is that which is constantly reaching out in good to others.

Somerville School aims to be thoroughly Evangelical and Christian, without being in the least sectarian. It is aided financially by no church, is under no

denominational supervision or patronage of any kind. The students, however, are required to attend service in some Christian church every Sunday morning, weather and health permitting. There is also a short Sunday evening service at the School which the students are required to attend. Systematic Bible study is also provided. The aim is to crown all else with the diadem of CHRISTIAN CULTURE.

Respectfully submitted,

EDWARD A. BERRY,
Superintendent.

REPORT OF THE VISITORS.

Hon' HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The committee appointed to visit Somerville School at St. Clair, Mich., respectfully report:

We visited the school on the 23d and 24th of May; found the average attendance for the year had been forty-five. A class of eleven, two of whom expect to enter Michigan University, graduated in June. The corps of teachers seemed adequate to the instruction of a larger number of pupils, but the buildings are unable to accommodate more until the additions now being built are completed.

The plan of the school we most heartily commend as one designed to fill a great want in the needs of our State, viz.: The preparation of young ladies for a college or university course, and to those who cannot carry their education so far, a course in Belles Lettres is offered in addition to the regular studies of a High School, all admirably adapted to a useful educational system.

In connection with the regular departments is also a small but carefully selected library, and a well equipped studio where instruction in Drawing and Painting is given. We found the domestic department everything to be desired, neat and orderly, while the table was supplied with plenty of good, wholesome, well-cooked food, well served. The rooms of the young ladies, of which they have the entire care, were patterns of taste, order, and neatness.

The whole air of the institution is homelike and comfortable. Its greatest want is more room. We feel confident that if its plan can be carried out to completeness it will rank with the best institutions of learning in our State.

Yours respectfully,

MRS. S. L. WITHEY,
MRS. DAVID H. JEROME,
MRS. S. M. CUTCHEON,
Visitors.

MANUAL OF INSTRUCTION

FOR

MICHIGAN TEACHERS' INSTITUTES.

1883-4.

MANUAL FOR TEACHERS' INSTITUTES.

INTRODUCTORY.

In 1878, the first manual of institute work was issued by the Superintendent of Public Instruction. Twice since that time the work has been revised and enlarged. Previous to the time of holding the State Institute for the present year, questions were sent to the leading educators of the State, for the purpose of obtaining their opinion as to what subjects in the old manuals had best stood the test of experience in institute work. They were also asked to name the subjects they wished revised and the persons whom they preferred to present them at the Lansing Institute in July. In accordance with the suggestions received nine subjects of the former outlines and four new ones were placed on the programme, and sixteen of the most experienced teachers and successful institute workers were selected to present and discuss them. Each person, in the preparation of his syllabus, was advised to make use of whatever he deemed most valuable upon that subject in the previous manuals. Each syllabus was freely discussed and closely criticised by those present, and ample notes and suggestions were taken at the time to aid this Department in arranging the work for publication. From this it will be seen that these outlines are not the theoretical presentations of untried methods, but are the out-growth of several years' trial in the county institutes, and bear the amendation and approval of the whole corps of institute instructors.

The new subjects presented are: A Course of Self-training for Common School Teachers; The Effects of Alcoholic Drinks, Narcotics, and Stimulants; A Programme of Class or Normal Work for a Week's Institute, and Methods in Class-work. The first of these subjects need not occupy more than one period in the programme. By a proper presentation of this topic it is hoped that teachers may be made to feel the importance of a more liberal and better preparation for their work, and that such a professional spirit may be aroused among the teachers of the ungraded districts as will lead them to seek every means of self-improvement and the advancement of their schools.

A recent amendment to the school law has made necessary the second subject. No text-book upon physiology and hygiene seems yet to have treated as extensively of the effects of alcoholic drinks, narcotics, and stimulants as is contemplated by the law; but it is believed that with this syllabus the work may be so arranged and studied as to give a fair amount of instruction on these topics.

It has frequently been remarked that more class or normal work should be given in the institute. It was in accordance with this suggestion that one of

the most experienced institute workers was asked to prepare the syllabus upon this subject. As to the amount of this kind of work that can profitably be done in an institute of five days' duration is yet an unsettled question; but with this outline and the accompanying daily programme, it is hoped that each conductor will make the experiment of introducing a certain amount of class-work into the five days' institute. A still greater proportion of the time might profitably be given to class-drill, when the institute continues ten days or more. The arrangement of the work in the programme is merely suggestive as to *one* method which might be wholly or partially adopted, and is the plan successfully pursued in a former two-weeks institute. Each conductor is requested to note carefully the results of this kind of work, and to report the same to this Department, together with such suggestions as he may be able to give, for making the plan more perfect, practical, and productive of good to the teacher.

In the syllabus, Organization and Grading of District Schools, will be found in tabular form a course of study for ungraded districts; also, a daily programme for carrying the same into practical use. The course has been tabulated to make it more tangible to teachers who adopt it in their schools. The same course and programme, with notes and explanations, are sent in leaflet form to the conductor of each institute for general distribution, and he is requested to see that every teacher present is supplied with one or more copies. Institute instructors are urged to make all necessary explanations of the course of study and to give this important subject such attention as will eventually lead to the adoption of the graded system in all of the country schools. The utility of this plan should also be brought to the notice of school boards, inspectors, and examiners; for by their advice and assistance the establishing of a regular course of study may be more readily accomplished and be better maintained by the teacher.

The programme at the end of the manual is quite similar to those in the former outlines. In this no attempt is made to give the exact amount of labor upon each subject or to dictate the particular topics to be treated. This is left largely to the various instructors, to be decided as the wants of the teachers and their *own* experience may suggest. Should more class-work be introduced into the institute, the programme previously referred to would suggest the arrangement of the work.

The conductors are requested to note, in their reports to this Department, the subjects presented to the institute and the particular topics discussed. It is desirable that instructors should know the character and amount of work done in each subject at former institutes of the county to which they are appointed, and it is hoped that by these reports it may be possible to present to each conductor, before taking charge of the institute, a schedule showing what topics have received special attention from institute instructors during previous years.

HERSCHEL R. GASS,
Superintendent of Public Instruction.

OUTLINE OF INSTITUTE WORK.

OPENING WORK.

I.—The Objects of Teachers' Institutes.

1. To increase the efficiency of the teacher:
   - *a.* By giving a distinct idea of the *true ends* of education;
   - *b.* By giving some elementary knowledge of the science of teaching;
   - *c.* By illustrating and enforcing the best methods of imparting instruction;
   - *d.* By giving a correct idea of what constitutes a good school.
2. To secure a greater degree of uniformity in our work:
   - *a.* In methods of organization, records, teaching, government;
     1. By promoting acquaintance and interchange of ideas:
        - *a.* Among teachers of the vicinity;
        - *b.* From other parts of the State and from other grades of schools;
     2. By promoting professional knowledge and spirit;
     3. By securing co-operation of the teachers of the State with the Department of Public Instruction.
3. To correct prevailing faults, involving:
   - *a.* Waste of time in movements of pupils, in conducting recitations, in repeating work done by previous teacher;
   - *b.* Wrong methods arising from defective knowledge and lack of experience.

II.—Hints to Institute Members.

1. Take notes and preserve them for future use.
2. Without being urged, enter earnestly and heartily into all exercises, take criticism good-naturedly, and be companionable.
3. Attendance on all exercises should be prompt and regular.
4. Make yourselves agreeable in the families in which you stop and in the town, both for your own sake and the sake of the cause.
5. Members should bear in mind that the institute is a school, not a *debating* society; instructors, that they are to teach and exemplify rather than lecture.
6. Interruption of instructors during an exercise by questions, is to be guarded against by having a fixed time for answering questions.

ORGANIZATION AND GRADING OF DISTRICT SCHOOLS.

I.—Preparatory.

1. Choice of a school. Young teachers should not select a difficult school at first.
2. Contract should be made in writing, and conditions definitely stated. Both parties should have a copy.
3. Obtaining information:
   - *a.* From former teacher;
   - *b.* From school board;
   - *c.* From parents;
   - *d.* From children;
   - *e.* Examine school record. Every teacher should keep a record, which indicates the classification, advancement, and standing of each pupil;
   - *f.* Examine school-house and premises, and see that they are in proper condition.

A few days may be very profitably spent in visiting the families of the district before the commencement of the term.

II.—First Day.

1. Be early. This is all important.
2. Take the names of the pupils as they enter the room. Endeavor to make the first impressions pleasant. Learn what you can of each pupil's studies, advancement, etc.
3. Call to order exactly on time.
4. Have a definite plan of work for the day:
   - *a.* What you will do;
   - *b.* How you will do it and when you will do it.
5. Let the opening exercises be short.
6. Assign lessons promptly. Commence with last lesson of preceding term and with a short advance lesson.
7. Complete the enrollment. Take:
   - *a.* Full name of pupil;
   - *b.* Full name of parent or guardian;
   - *c.* Age of pupil.
8. Hear lessons assigned according to temporary programme.

III.—Permanent Organization.

1. Forming classes and arranging daily schedule of work.
   - *a.* In forming classes, consider:
     1. The branches to be taught;
     2. The branches to be pursued by each pupil;
     3. The arrangement of pupils into classes;
     4. The order of classes, and times for recitation and study.
   - *b.* In a district school employing but one teacher, there should not be more than four grades; and the number of classes in each grade should not exceed four. By a close classification they need not generally exceed that number;

c. If algebra is taught, arithmetic should be dropped or alternate. Higher arithmetic has no place in a district school. U. S. History and civil government should be taught together. Geography should be dropped, except for reference, when history is taken up. A thorough classification of the school will be equivalent to grading.

2. How to grade pupils:
   a. What are the attainments of the pupil?
   b. Can he do the work of the proposed grade?

NOTE.—A Tabular Course of Study and daily programme for District Schools, will be found immediately following these Outlines in this volume, and institute instructors are requested to familiarize themselves with them, so as to be able fully to explain their use, and the correct way in which to classify or grade pupils.

A COURSE OF SELF-TRAINING FOR TEACHERS OF COMMON SCHOOLS.

1. Continuous self-improvement is a duty that teachers owe to themselves and to their patrons. When a teacher ceases to be a student he becomes unfit for the duties of his office.

2. This self-improvement lies in three main lines:
   a. An ever-extending knowledge of subjects, *i. e.*, mathematics, language, and science;
   b. General literature;
   c. Professional knowledge.

3. In pursuing a study of subjects, the choice should fall on the one most needed, as arithmetic, history, or physiology. When the choice has been made, a brief and plain text-book should be chosen and then mastered little by little; then a second subject may be selected and pursued in the same way.

4. Any teacher with a proper will may learn to read a modern language by first mastering an elementary grammar, and then advancing to easy reading. French pursued in this way will not cost a very great effort.

5. A fair acquaintance with the natural sciences may be quite readily acquired in this way. Choose some brief and clear text-book and then master it.

6. A teacher should be a habitual reader of some good literary journal, and should buy and read one or two good books each year.

7. For improving in professional knowledge, a teacher should read a good educational journal, and should make a careful study of books on the art and science of teaching.

8. These three lines of study may be followed in conjunction. The variety will be pleasing and helpful.

9. The following rules will aid in giving effect to this proposed course of study:
   a. Make a firm resolution to educate yourself; select your subjects and your books, and begin at once;
   b. Proceed little by little, and gain the mastery of every inch of ground that you traverse. A clear victory over one obstacle will make the next conquest easier;

c. Association with others in the same pursuits will be very helpful. The formation of reading circles, on the Chautauqua plan can not be too strongly recommended;

d. Be the actual owners of the magazines and books that you use.

10. Some of the best aids in the way of professional improvement are teachers' institutes and associations. They will encourage and assist teachers in the work of self-help.

11. Suggested course of study:

FIRST YEAR.

First term:	Second Term:
1. Arithmetic.	1. U. S. History.
2. Page's Theory and Practice of Teaching.	2. Lincoln's School Hygiene.
3. Standard Author. Magazine and Journal.	3. Standard Author. Magazine and Journal.

SECOND YEAR.

First term:	Second term:
1. Algebra.	1. Civil Government.
2. Swett's Methods of Teaching.	2. Laurie's History of Educational Theories.
3. Standard Author. Magazine and Journal.	3. Standard Author. Magazine and Journal.

THIRD YEAR.

First term:	Second term:
1. Physiology.	1. English Literature.
2. Putnam's Outlines of the Theory and Art of Teaching.	2. Payne's Lectures on the Science and Art of Education.
3. Standard Author. Magazine and Journal.	3. Standard Author. Magazine and Journal.

FOURTH YEAR.

First term:	Second term:
1. Natural Philosophy.	1. General History.
2. Bain's Education as a Science.	2. Bain's Education as a Science.
3. Standard Author. Magazine and Journal.	3. Standard Author. Magazine and Journal.

And so on during life.

12. This scheme of study is aimed against the common mistake of attempting to do too much. The essential thing is to keep the mind progressively active.

13. Whenever possible, teachers who are working under serious limitations of scholarship should suspend their teaching for a time, and attend some good school,—preferably the State Normal School.

14. To encourage self-improvement, county examiners should allow some credit for the completion of each year's prescribed work.

SCHOOL GOVERNMENT.

I.—WHY?—PURPOSES AND OBJECTS.

1. To facilitate the work of instruction.
   Good government facilitates this work by securing:
   a. Quiet;
   b. System.
2. To create and fix in the pupil a habit of obedience to all proper authority:
   a. To the authority of God;
   b. To the authority of conscience,—self-government;
   c. To parental authority;
   d. To the civil authority;
   e. To the authority of society in general and in particular.

II.—HOW?—MEANS OR INSTRUMENTS.

1. The moral means or forces,—the means that win obedience:
   A. In the teacher. The moral elements in the teacher's character that are forces in governing are:
      a. Justice;
      b. Firmness;
      c. Honesty, truthfulness;
      d. Kindness;
      e. An active love for his pupils and for his work;
      f. Sympathy—the ability to see things with the pupils' eyes;
      g. Self-control,— control of actions, words, and feelings;
      h. Courtesy, civility;
      i. Industry;
      k. A love for all that is good,—character, manhood.
   B. In the pupil. The moral elements in the pupil's character that are to be used for his government are:
      a. Conscience;
      b. His love for those who are amiable;
      c. His respect for his teacher's moral worth;
      d. His gratitude,—desire to reciprocate benefits received;
      e. His "good nature;"
      f. His pride,—his desire to excel and to please;
      g. His greater or less natural or cultivated loyalty to authority;
      h. "He wants to be a man."
2. The intellectual means or forces,—the forces that command obedience:
   A. In the teacher. The intellectual elements in the teacher's character that are forces in governing are:
      a. Judgment;
      b. "Common sense;"
      c. Tact;
      d. Scholarship,—know the lessons;
      e. General intelligence;
      f. Knowledge of human nature, especially of the child's nature,— an understanding of the springs of action.
   B. In the pupil. The intellectual elements of the pupil's character that are to be used for his government are:

a. His natural mental activity;
b. His natural desire for knowledge, and his respect and admiration for knowledge in others;
c. His love of novelty;
d. His inquisitiveness;
e. His imitativeness.

3. The impelling or penal forces,—the forces that drive to obedience, or authority:

A. Shame.
B. Fear.
C. Pain:
a. Mental;
1. Ridicule,
2. Reproof,
3. Reports to parents,
4. Disapproval,
5. Loss of privileges.
b. Physical,—corporal punishment,—the last resort;
1. It must not be too severe,
2. Not too frequent,
3. Not in anger, nor for revenge,
4. Not for its effects on others,
5. Not so as to cause serious injury,
6. Privately, promptly, earnestly,
7. With what instrument?
8. Not by outlandish or ridiculous means,
9. Imprisonment,—detention at recess or after school.

4. Maxims and special rules:

1. Set a good example;
2. Keep your pupils busy,—use a good program that indicates the work to be done by each at every minute of the session,—be systematic;
3. Make the school-room, the school, and its work attractive;
4. Lead rather than drive,—voluntary obedience to right is worth infinitely more than enforced obedience;
5. Don't overgovern,—allow as much freedom of action as is consistent with the good of the whole;
6. Distinguish carefully between malice and mischief,—dirt is innocent matter in the wrong place, so mischief is innocent activity in the wrong place;
7. Distinguish carefully between the breaking of a school rule and the infraction of a moral law,—"Thou shalt not whisper" is far less authoritative than "Thou shalt not kill;"
8. Young children are to be governed largely by a preventive watchfulness,—by authority. The mother's word is the first "datum of ethics." Older pupils are to be governed more by principle,—by conscience. The "ought" is their "datum of ethics;"
9. Remember that pupils have rights as well as duties;
10. Don't do violence to a child's sense of honor, though it be a false one;
11. Forgive the thoughtless "seventy times seven,"—treat only malice with severity;
12. "An ounce of prevention is worth a pound of cure;"

13. Trust your pupils and watch them. Some say find out the "bad boy" beforehand; but probably you'll find him out soon enough without hunting for him. May be he'll not be a bad boy with you;
14. A school is well governed when it is so governed that the work of instruction goes on successfully;
15. Don't be over-jealous of your authority,—an authority that needs to be "asserted" often is hardly worth asserting at all;
16. Government, to be good, must be consistent and steady, not "jerky;" "Turning over a new leaf" once a month is a bad sign;
17. Be cool, be quiet,—don't threaten, nor scold, nor whine;
18. Don't unnecessarily irritate,—don't provoke to anger;
19. Punishment, when resorted to, should be nicely adjusted to the kind and degree of the offense and adapted to the condition and nature of the child; and it should be, as far as possible, the direct and natural result of the offense;
20. Don't begin by announcing many rules;
21. Don't make a rule you cannot or will not enforce;
22. Punishment should be certain rather than severe;
23. Don't cultivate deceitfulness and untruthfulness by practicing the plan of "self-reporting;"
24. Be with your pupils as much as you can on the play-ground;
25. Keep within your control the seating of your pupils;
26. Form and control for good the public sentiment of your school;
27. Some, after all, are "born to rule," and are quietly conscious of this power; some never can govern.

METHODS IN CLASS-WORK.

I.—Class Methods Depend upon the Conception of the Objects of the Recitation.

The objects are:

1. To find out what the pupil knows or does not know of the lesson.
2. To economize the time of teacher and pupils by enabling the teacher to teach many at once:
   - *a.* To present a new topic to the class;
   - *b.* To explain difficulties that are common to a large number of the class.
3. To develop the powers and guide the activities of the child's mind:
   - *a.* To incite close observation;
   - *b.* To secure quick and accurate perception;
   - *c.* To induce right habits of thought, expression, and study.
4. To cultivate manners and morals.
5. To correct errors.
6. To stimulate pupils:
   - *a.* To excite and retain the interest of pupils in their school work;
   - *b.* To inspire to renewed energy and loftier ideals.

The work of the school culminates in the class.

II.—Preparation is Necessary on the Part of Teacher.

1. By the teacher:
   - *a.* Self preparation:
     1. General familiarity with the subject, derived from previous study.
     2. Special preparation for the special class, by:
        - *a.* Study of the text-book used;
        - *b.* Reading and reflection;
        - *c.* Plan of recitation,—consideration of the special point to be made and how to make it;
        - *d.* Preparation and arrangement of questions;
        - *e.* Devising illustrations; procuring materials, apparatus, etc.;
        - *f.* Survey of next day's work.
   - *b.* Instruction to pupils:
     1. Assignment of next day's lesson,—it is often necessary to call attention to and explain some portion of it;
     2. How to use text-book, dictionary, references, etc.
2. Thorough preparation performs a triple office for the teacher:
   - *a.* It liberates the mind;
   - *b.* Gives him confidence in himself;
   - *c.* Gives the pupils confidence in him.

III.—Management of the Class.

1. Movements:
   - *a.* Sitting, standing, dismissals, etc., regulated according to the age and advancement of pupils;
   - *b.* Signals,—calls to order, permissions, dismissals, etc.
2. Manners and morals:
   - *a.* The teacher:
     1. Should be courteous,—careful of pupils' feelings;
     2. Should exercise a cool judgment, but be prompt and just;
     3. Stimulate emulation, but repress ungenerous rivalry;
     4. Have correct and genteel habits.
   - *b.* The pupil:
     1. Should exhibit the teachable spirit;
     2. Maintain order,—order chiefly a matter of manners; as, only one should talk at a time;
     3. Should be trained to good habits,—posture, politeness, honesty, etc.

IV.—Conducting the Recitation.

1. Keep to the subject, do not wander.
2. Individualize the reciting:
   - *a.* Call on each pupil daily when possible, but not in regular order;
   - *b.* Make the responsibilities of the recitation obvious to every member of the class:
     1. By satisfaction of successful recitation;
     2. By shame of failure;
     3. By proper credits—record of 1 and 2;
     4. By test-examinations.
   - *c.* Concert recitation seldom desirable.

3. Cultivate the pupils' self-confidence:
   a. It should be well founded—not based on babbling;
   b. Excessive timidity improper and should be overcome.
4. Have the pupils to do the talking of the recitation, but keep it under control:
   a. Call on pupils to talk; or,
   b. Require permission to be obtained;
   c. Allow no aimless talking, or talking merely to kill time, etc.
5. Method by questions:
   a. In their form questions may be full or elliptical, categorical or topical; but should not be what are known as "leading," except for purposes of misleading—snares to catch ignorance;
   b. In their nature questions should relate to the subject, should be clear and concise, logical and progressive, and should exhaust the subject;
   c. Answers should relate to the subject, should be clear and concise, logical and exhaustive. A pupil should not only know detached facts, but should comprehend and trace their relations.
6. Method by topic:
   a. This form of question has a wide range and requires the pupil to keep track of its subdivisions;
   b. Suitable to older pupils;
   c. Advantage,—requires the holding in the mind many facts in a certain order of narration;
   d. Disadvantage:
      1. The recitation may be a mere matter of verbal memory;
      2. Cannot safely take the place of categorical questioning, and should be supplemented by it.
7. Cultivate the power of concise, accurate, and ready expression:
   a. Expression should go hand in hand with acquisition—clear language is the best test of clear thought;
   b. Discourage mere memorizing,—secure the mastery of the ideas;
   c. Enlarge the pupil's vocabulary. See that the technical terms of the subject are mastered and properly used. Mastery includes three things,—meaning, pronunciation, spelling;
   d. Secure natural expression in natural tones and manner.
8. Correction of errors:
   a. By the pupils:
      1. Advantages:
         a. Distributes the work of the recitation;
         b. Enlists the attention of all;
         c. Teacher can hold the class responsible for errors.
      2. Caution:
         No interruptions allowable by action or word while a pupil is reciting.
   b. By the teacher:
      1. Correction should often be suggestive;
      2. Teacher should always seek the cause of the error:
         a. In himself:
            1. Improper question or improperly put;
            2. Carelessness in assigning lesson or in teaching;
         b. In the pupil:

1. Lack of preparation;
2. Inability, either natural or from improper classification.
3. Inattention.

9. General items:
   a. Secure proper use of blackboard and apparatus;
   b. Require topical reviews and written abstracts,—written work on blackboard and paper should be introduced and form a prominent feature wherever practicable.

LANGUAGE LESSONS.

I.—Objects.

1. To speak and write easily and correctly:
   a. Acquisition of words;
   b. Use of words to express ideas—the sentence;
   c. Correct pronunciation;
   d. Correct mechanical form.
2. To inculcate a pure literary taste.

II.—Axioms.

1. Language before grammar.
2. Children learn to speak and to write by imitation.
3. To do is a condition of to know; we learn to speak by speaking and to write by writing.

III.—Oral Work.

1. Objects—best adapted for language teaching in earliest stages:
   a. Observe—use eyes well—then express;
   b. Questions by teacher—answers in sentences by pupils;
   c. Working model:
      1. Object named;
      2. Where and by whom made;
      3. Of what made or composed;
      4. Parts { Position; Shape; Material;
      5. Use { Of whole; Of parts.
2. Pictures—plans similar to those with objects.
3. Answering questions on reading lesson nearly in terms of the book.
4. Acts and movements described.
5. Stories told or read—for oral reproduction.
6. Narrating child's own doings; describing what he has seen.
7. Memorizing and reciting choice selections—adapted to all grades.
8. Lists of common inaccuracies and vulgarisms for repeated drill.

IV.—Written Work.

1. Copying words, sentences, and paragraphs in exact form of the book.
2. Writing from dictation—new sentences in old words.

3. Copying and supplying ellipses; choice of words.
4. Making sentences containing given words.
5. Answering questions on reading lessons:
   a. Direct;
   b, Indirect.
6. Pictures:
   a. Description of contents;
   b. Imaginary story suggested by picture.
7. Writing lists of words of designated classes—from reading lessons, or of familiar objects.
8. Abstracts of reading lessons—teacher furnishing heads of the composition.
9. Stories read for written reproduction.
10. The sentence—parts—structure; kinds:
   a. Declarative;
   b. Interrogative;
   c. Exclamative.
11. Name-words, action-words, quality-words; practice in identifying them.
12. Changing form of sentence, as declarative to interrogative, common to progressive, present to past, singular to plural, and *vice versa.*
13. Formal composition—subject selected beforehand and worked up at several sessions of the class, preparatory to writing.

NOTE.—Much of the work outlined above may be done orally with great profit. Oral and written work should go hand in hand. In all written work there should be instruction and criticism in neatness, capitals, punctuation, and paraphrasing.

V. LETTER WRITING.

1. Points to be considered:
   a. Parts—heading, address, salutation, body, subscription;
   b. Definition and exact position of each;
   c. Margins—number and width;
   d. Folding, addressing envelope, superscription;
   e. Arrangement of parts shown by model diagram.

VI. WORD STUDIES.

1. As to form:
   a. Diacritical marks;
   b. Abbreviations and contractions.
2. As to pronounciation—lists of words of similar sound and of mispronounced words for drill.
3. As to meaning:
   a. Word analysis—applied to the compound word, prefix, suffix, and stem;
   b. Defining—chiefly by synonyms, opposites, and equivalent expressions; test—the proper use of the word in a sentence;
   c. Changing grammatical forms;
   d. Figurative words and expressions elucidated;
   e. Use of dictionary.

NOTE.—Work indicated under "III," "IV," and "VI," not to be consecutive, but, under readily discernible limitations, parallel.

THE ART OF QUESTIONING.

I. Introductory.

1. Questioning is only a factor of the great whole,—the Recitation; and the art of questioning must fit into and harmonize with the larger product.

2. The first inquiry, then, is: What are the objects of the recitation? These may be briefly stated thus:

a. Main objects:
   1. Instruction by the teacher;
   2. Training of the pupil.

b. Incidental objects:
   1. To induce study;
   2. To test preparation;
   3. To cultivate expression;
   4. To correct errors;
   5. To lead to investigation;
   6. To secure attention.

II.—The Formation of Questions.

1. Questions should be:
   a. Simple and clear in language;
   b. Definite and direct in meaning.

2. Questions, then, should be so framed as to lead to:
   a. Additional instruction;
   b. Additional mental exercise.

They should, of course, be adapted to the age, capacity, knowledge, and experience of the members of the class.

3. Questions should be so framed as:
   a. To stimulate to close study. If, in reciting, the scholar does not develop all the bearings of a topic, questions should lead him to follow it to its details;
   b. To test previous preparation. These questions should be asked rapidly, and call for (in arithmetic and grammar) definitions, rules, and principles, (in geography) location, products, descriptions, etc.;
   c. To cultivate the power of clear and accurate expression. Answers should be clear and concise, and, as far as possible, in full sentences;
   d. To correct errors or mistakes;
   e. To lead to closer investigation. These questions should usually be preliminary to a future recitation,—asked to-day, answered to-morrow, and meantime investigated;
   f. To secure attention. Rapidity of movement, sharp and unexpected questions relieve the monotony of recitation, and so hold attention to the work in hand.

III.—Suggestions.

1. Questions should rarely be put to pupils according to their order in class. A good recitation, especially for young people, should be full of surprises and of the unexpected. Judicious questioning makes this possible.

2. In framing questions do not over-estimate the understanding and experience of the class.

3. A question that can be answered by "yes" or "no" is, in most cases, an ill-considered one.

4. Unless it be desirable, for special reasons, temporarily to crush a pupil, no questions should be put to him which he will probably fail to answer. Frequent failures dull the fine edge of enthusiasm.

5. Questions on review lessons, akin to the one in hand, tend to keep in mind the unity of topics seemingly disconnected.

IV.—Qualifications of a Good Questioner.

1. A thorough knowledge of the subject and of its relations.

2. A clear conception of the important points of a subject, and of its difficulties for a young student.

3. Some knowledge of the general laws of mental action, and of the special laws of suggestion and association.

4. A full acquaintance with the conditions, experience, and personal peculiarities of the learner.

TECHNICAL GRAMMAR.

I.—Objects (in the order of importance).

1. Educational; i. e., the training of the judgment, reason, etc.

2. Increased power of interpreting authors.

3. Improvement of one's speech through a knowledge of its laws.

The last consideration is too often allowed to overtop the others.

II.—Methods.

1. The sentence, being the unit of discourse, is naturally the point of departure in grammatical study.

Show how the child is already familiar with the thing to be studied.

2. The study should not be entered upon before the pupil is old enough readily to comprehend the relation of subject and predicate (from ten to twelve years old).

3. Parsing and analysis are esentially alike; i. e., they are both exercises in the classification of the elements of a sentence.

The first is commonly restricted to single words; the second includes the treatment of the larger elements of a sentence.

4. The principle of classification here is similarity in use.

The child is already familiar with the classification of material objects. Illustrate by the use of books, apples, peaches, hats, etc.

5. Begin with the parts of speech in their order, and practice on these till the pupil readily classifies the words of easy prose.

6. Take up the sub-classifications of each part of speech in turn, with thorough drill on the few inflections.

It is easy to carry these sub-classifications too far with beginners; e. g., the distinction of nouns as common, proper, and abstract, involves a subtle principle of logic that is seldom clearly seen by young pupils.

7. Classification of phrases and clauses. Practice contraction and expansion of these elements, thus showing more clearly their substantive, adjective, and adverbial nature.

III.—Cautions.

1. Bear in mind that the province of grammar is not to make the laws of speech, but to reveal them.

2. Do not make the mistake of trying to bring all usages under a few simple rules. Leave the idioms, in which our language abounds, for special advanced study.

In disregarding this caution violence is often done to the pupil's reason, and thus an important object of the study is defeated.

3. With the study of technical grammar should be coupled regular and systematic practice in composition.

ELEMENTARY SOUNDS.

I.—Articulation and Classification.

1. Table of elementary sounds presented on the blackboard or on charts.
2. Sounds given by the instructor, the members imitating.
3. The instructor points out the written characters and the members articulate.
4. The instructor gives the sounds and the members classify them.

NOTE.—The institute should be treated as a class, and led to utter abundant examples under each head. Attention should be given to the position of the vocal organs for the correct utterance of each word. As thorough a drill as possible should be had upon the table hereto annexed.

II.—Representation.

1. Table of diacritical marks presented.
2. Names and uses explained.
3. The instructor articulates sounds and the members represent them by written characters.

NOTE.—The work outlined in I. and II. should be continued until the members of the institute can articulate the sounds and write out the table from memory.

III.—Exercises.

I. Series of questions, as: How many sounds has *a*? Has *d* any diacritical marks? Give the long sound of *a*; the Italian sound. Name three words containing the short sound of *a*, etc.

2. Sounds studied, as *ä*, *a̤*, *ŏ*, *g̈*, *etc.*

   a. The sound given in concert and singly;
   b. List of words containing the sound;
   c. Diacritical marks explained;
   d. The sound classified;
   e. Written representations of the sound.

3. Words and sentences dictated or copied and the letters marked.
4. Words analyzed:
   a. Pronounce the word;
   b. State the number of syllables;
   c. Spell by sound;
   d. Classify and explain how represented:
      1. By what letter;
      2. By what diacritical mark;
      3. Usual or unusual.

5. Pronunciation of words with different diacritical marks; also of unknown and imaginary words.

TABLE OF ELEMENTARY SOUNDS.

Diacritical Marks.

VOWELS.

Macron ..... { above.....māde. / below.....they.
Dots ..... { above.....fär. / below.....all.
Circumflex.....dâre.
Wave.....verge.
Breve.....nŏt.
Dot ..... { above.....fȧst. / below.....wolf.

CONSONANTS.

Bar ..... { above.....gone. / through....cat. / below.....ink.
Cedilla.....façade.
Dot.....ġem.
Suspended Bar.....under s and x.
Tilde.....cañon.

Examples.	Vocals.	Equiv.	Examples.	Examples.	Sub. V.	Asp.	Examples.
māde	ā	e	they	beg	b	p	pet
dâre	â	ê	thêre	dog	d	t	to
fär	ä			go	g	k c	kit cat
fȧst	ȧ			gem jug	ġ j	ch	chat
all	a	ô	nôr	lame	l		
what	a	ŏ	ŏn	me	m		
ăt	ă			no	n		
ēve	ē	ĭ	pique	ring ink	ng n		
mĕt	ĕ			rat	r		
ice	ī	y	my	vat	v	f	fat
it	ĭ	y	nymph	wo	w	wh	when
old	ō			yet	y		
ooze	o͞o	o u	do rude	zest as	z s	s ç	sit cell
foot	o͝o	o u	wolf put	azure	zh	sh	shut
use due	ū			this	th	th	thin
urge	û	e i	verge girl			h	hat
us	ŭ	o	son				
oil	oi	oy	boy	exist	x	x	tax
our	ou	ow	cow				

NOTE.—The above table is given for convenience. Authorities differ as to the number of elementary sounds.

PENMANSHIP.

I.—Position.

1. Of body:
   - *a.* Body inclined slightly forward;
   - *b.* Feet on floor, in an easy and natural position;
   - *c.* Right side turned a little towards the desk;
   - *d.* Right fore arm upon the desk oblique to its front edge, the arm and hand resting on muscle of fore-arm and the nails of third and fourth fingers;
   - *e.* Left arm at right angles to right arm, so as to hold paper and support position.
2. Of pen:
   - *a.* Against side of second finger, near root of nail; across first finger between second and third joints; end of thumb opposite the first joint of the first finger.

II.—Movement.

1. "Muscular movement." Do not bend thumb and fingers. Slide the hand back and forth on nails of third and fourth fingers, the fore-arm moving upon the tissues of its muscles.
2. Take pen, without ink, and drill until there is freedom of movement.
3. Combine "muscular movement" and "finger movement."

III.—Elements.

1. Left curve, (;
2. Straight line, /;
3. Right curve,).

IV.—Method of Teaching.

1. Every character in concert, pupils naming aloud each element as the pen traces it;
2. Then each one at his own rate;
3. Teach every lesson from the board;
4. Require pupils to prepare lessons on paper and black-board under direction of teacher;
5. Collect and preserve specimens of penmanship at intervals for purposes of comparison.

Note.—Teach pupils penmanship as soon as they enter school. Ruled slates for beginners will be found helpful.

V.—Work.

1. On drill exercises—connected repetitions of capital O, and same reversed; then connected straight line exercises—small *m* enlarged.
2. Principles: 1st, small *m;* 2d, small *o;* 3d, small *l;* 4th, capital *O;* 5th, capital *A*.
3. Letters of 1st principle—*m* class,—*m, n, w, v, u, x, r, i, t, minimum.*

4. Letters of 2d principle—*o* class,—*o, a, d, e, c, commandments.*
5. Letters of 3d principle—*l* class,—*l, b, h, k, f, p, j, y, g, q, z, alphabetically.*
6. Letters of the 4th principle—capital *O* class,—*O, E, C.*
7. Letters of the 5th principle—capital *A* class,—*A, N, M,* etc.
8. Present the other letters in same manner, and give words and sentences.

THE EFFECTS OF ALCOHOLIC DRINKS, NARCOTICS, AND STIMULANTS.

I.—Alcohol.

1. Its origin:
   - *a.* Fermentation;
   - *b.* Distillation.
2. Its source:
   - *a.* Fruit juice;
   - *b.* Grains;
   - *c.* Starchy substances;
   - *d.* Solution of sugar.
3. Its character:
   - *a.* A poison,—give examples;
   - *b.* Relation to animal life;
     1. Action on the stomach,
     2. Disturbance of normal digestion,
     3. Method of removal from the stomach,
     4. Explanation of the 'alcohol breath,"
     5. Disturbing action on the brain,
     6. Action on the nervous system,
     7. Action on the muscles;
   - *c.* Alcohol as food,—not useful;
   - *d.* Disturbing effect of alcohol on the intellect;
   - *e.* Effect on the will;
   - *f.* Alcohol as an alleged protection against extremes of heat and cold;
   - *g.* Alcohol as an alleged protection against disease;
   - *h.* Alcohol as a cause of vice;
4. Transmitted effects of alcohol:
   - *a.* Hereditary appetite for alcohol.
5. Alcohol in domestic drinks, as cider, etc.
6. The proper place for alcohol:
   - *a.* In the mechanic and scientific arts;
   - *b.* In medicine,—always under the direction of a competent physician.

II.—Tobacco.

1. Its nature:
   - *a.* A narcotic poison.
2. Its effects:
   - *a.* On the body;
     1. Contagion from smoking,—ulcers, sore mouth and lips,

2. Tendency to produce dyspepsia, nervousness, an appetite for alcoholic drinks,

b. On the mind;

1. Loss of memory,
2. Irresolution,
3. Cowardice.

3. Transmitted effects—

a. On sons,—aimlessness, lack of vigor;

b. On daughters,—nervous organization.

NOTE.—No attempt to present the above syllabus scientifically is deemed desirable. The more obvious evil effects should receive special attention.

SPELLING.

I.—RESULTS SOUGHT.

1. Knowledge of the proper form and use of words.
2. Power of close observation and correct habit of study.
3. Power of unconscious, automatic spelling.

II.—MATERIAL.

1. The child's vocabulary;
2. Words in the reading book;
3. Words in the spelling book;
4. Words in other text books;
5. Misspelled words from compositions and other written exercises;
6. The dictionary:

a. For correct spelling;

b. For correct pronunciation.

III.—ORAL SPELLING.

1. Pupils should be drilled in vocalization:

a. Until they can readily distinguish the various sounds of the different letters and their combinations;

b. Until they are able to spell each word by sound and by letter, to name the silent letters, and to explain the use of substitutes.

IV.—WRITTEN SPELLING.

1. Should be introduced as early in the course as possible;
2. Should be employed with special reference to training the eye to know words by their forms;
3. Diacritical marks should be thoroughly mastered;
4. All written work should be done in the best and most careful manner.

V.—Work in Advanced Classes.

1. Teach a few principal rules, inductively and thoroughly.
2. Teach formation,—Word analysis:
   a. Of compounds,—permanent and temporary;
   b. Of derivatives,—roots, prefixes, suffixes.
3. Teach use of synonyms and homonyms.

VI.—Suggestions.

1. Spelling should cultivate perception, attention, memory; therefore pronounce a word fairly and usually but once for the pupils when in class.
2. Have pupils use everything necessary to the correct printing of a word,—capitals, hyphen, abbreviation mark, apostrophe.
3. Give special attention to words in most familiar use, teaching meaning with form and having pupils define and use in sentences.
4. Since the practical benefit of knowing how to spell is limited mainly to what we write, have pupils study spelling lessons by copying.
5. Create a lively interest in spelling by means of head marks, choosing sides, spelling matches, excusing from school by test spelling, examiners, logomachy, and other spelling games.
6. Have it understood that learning the spelling is an essential part of each lesson in all the text-books used.
7. Review frequently, and sometimes without previous notice. Omit all words of infrequent use.
8. With the pupil's progress the attention given oral spelling should diminish, while that given written spelling should increase.

CLASS OR NORMAL WORK AND PROGRAMME IN AN INSTITUTE.

1. The topic involves, indirectly, the whole question of methods of conducting a week's institute.
2. This syllabus is designed to be only tentative and suggestive.
3. The main purposes of an institute are:
   a. To give instruction in subjects taught in our schools;
   b. To give instruction in methods of teaching, management, etc.;
   c. To teach some of the elementary principles of the science of teaching.
4. The chief difficulties in determining how to conduct and instruct an institute arise from:
   a. The limited time;
   b. The great differences in the acquirements and experience of the members;
   c. Lack of clear and definite ideas of the work to be attempted.
5. Hinderances to efficient class work:
   a. Lack of acquaintance, and consequent lack of freedom of action, between instructors and members;
   b. Lack of conveniences for study, and for the management of classes;
   c. The difficulty, if not impossibility, of making class-work real, and not imaginary or make-believe.

6. Nevertheless, class work may be employed profitably for the purposes of:
   a. Reviewing and supplementing instruction given by other methods;
   b. Illustrating methods of class management and instruction, to some extent;
   c. Giving special instruction in one or more special branches of study.

7. When circumstances allow, an institute should be divided into two or more classes,—the classification to be based upon the alphabetical arrangement of names, or as the conductor may deem best.

8. For some lessons the different classes should, if conveniences permit, be taught in separate rooms simultaneously; other subjects should be taught or presented to the whole institute.

9. One or two hours of each session, after Monday, may be given to class work; under very favorable conditions, one-half the time of each session may be given to such work, especially during the last two days of the institute.

10. The subjects to be assigned for class work must, in each case, be determined by the needs of the locality, and by the available means of instruction and illustration at the service of the conductor.

11. For purposes of illustration, and to a limited extent, classes of children from the locality may be taught in the presence of the institute.

Daily Programme for a Two Weeks' Institute.

	A. M.					
1st hour.....	Lecture to the whole institute.					
	Room 1.		Room 2.		Room 3.	
	1st Week.	2d Week.	1st Week.	2d Week.	1st Week.	2d Week.
2d hour.....	Reading.	Reading.	Arithmetic.	Arithmetic.	Language.	Language.
3d "	Reading.	Reading.	Arithmetic.	Arithmetic.	Language.	Language.
4th "	Reading.	Reading.	Arithmetic.	Arithmetic.	Language.	Language.
	P. M.					
1st hour.....	Lecture to the whole institute.					
2d hour.....	Geography.	History.	Spelling.	To be	School Gov't.	To be
3d "	Geography.	History.	Spelling.	filled	School Gov't.	filled
4th "	Geography.	History.	Spelling.	out.	School Gov't.	out.

Remarks.

In rooms 1, 2, and 3 let the work be carried on as class exercises, under the charge of specialists. The above program is merely suggestive and contemplates the employment of a conductor and three instructors for a two-weeks' institute only; as a rule, however, the conductor can take charge of a class-

room, after having delivered a lecture before the whole institute, and hear one, two, or three recitations, calling upon members of the institute to hear recitations occasionally under his direction as critic teacher. In this manner the work may be carried on by a conductor and two instructors. In other institutes, again, the members may be arranged in two divisions, thus making it possible for the conductor and one instructor to accomplish the work. It will be seen that this plan embodies the leading features of the lecture system, the class exercise, and the training school.

CIVIL GOVERNMENT.

I.—GOVERNMENTS.

1. Definition and object.
2. Kinds:
   - *a.* Patriarchal;
   - *b.* Theocratic;
   - *c.* Monarchical;
   - *d.* Aristocratic;
   - *e.* Democratic;
   - *f.* Republican.
3. Political maxims.

II.—GOVERNMENT OF THE UNITED STATES.

1. Periods:
   - *a.* Colonial;
   - *b.* Under articles of confederation—insufficiency of;
   - *c.* Under constitution—origin and preamble.
2. Branches:
   - *a.* Legislative—law making, congress:
     1. Senate—eligibility, number of members;
     2. House of representatives—eligibility, number of members.
   - *b.* Executive—law enforcing:
     1. Election of president and vice president;
     2. Powers and duties;
     3. Cabinet—how constituted, duties.
   - *c.* Judiciary—law interpreting:
     1. Courts—supreme, circuit, district;
     2. Judges.
3. Special constitutional provisions:
   - *a.* Prohibitions on U. S., *habeas corpus, ex post facto,* etc.;
   - *b.* Personal rights.

III.—STATE GOVERNMENTS AS REPRESENTED BY MICHIGAN.

1. Relation to general government:
   - *a.* Rights of states;
   - *b.* State prohibitions.

2. Branches of state government:
   a. Legislative—branches, powers, number members, eligibility, term;
   b. Executive—state officers, powers and duties, term, eligibility;
   c. Judiciary:
      1. Justice courts—jurisdiction, functions;
      2. Probate courts—jurisdiction, functions;
      3. Circuit courts—jurisdiction, officers;
      4. Supreme court—how constituted, where held.
3. County government.
4. Township government.
5. Municipal government.

IV.—Territorial Governments.

1. Relation to general government.
2. Differ from state government.

V.—Political Machinery.

1. Committees;
   a. Kinds;
      1. National,
      2. Congressional,
      3. State central,
      4. County,
      5. Township,
      6. City,
      7. Ward,
      8. Representative—congressional,
      9. Representative—state,
      10. Judicial—district,
      11. Senatorial—state.
   b. Organization and duties.
2. Conventions:
   a. National;
   b. State;
      1. Executive,
      2. Judicial.
   c. District;
      1. Representative—national,
      2. Representative—state,
      3. Senatorial—state,
      4. Judicial,
      5. County,
      6. City.
3. Primaries or caucuses:
   a. Township;
   b. Ward.
4. Elections:
   1. General;
      a. Annual,
      b. Biennial.

2. Special;
   a. U. S. senatorial,
   b. Charter—cities and villages,
   c. School trustees,
   d. County examiners,
   e. To fill vacancies—
      1. Ordered by the governor,
      2. Ordered by board of supervisors.
3. Boards of canvassers;
   a. Township and ward inspectors,
   b. County,
   c. District,
   d. State.

NOTE.—For political machinery see Cocker's Civil Government of Michigan, pp. 131-139; also consult chairmen of committees.

SCHOOL LAW.

NOTE.—The references given below are to the General School Laws of Michigan, edition of 1881, a copy of which will be furnished to each institute instructor. Many points in regard to the privileges and responsibilities of teachers have not been made subjects of statutory provisions, but are governed solely by the law of custom and the decisions of courts.

I.—TEACHERS SHOULD KNOW SOMETHING OF IT, BECAUSE

1. It directly concerns them as to:
   a. Their preparation and qualification:
   b. Their duties and obligations;
   c. Their privileges and liabilities.

II.—A "QUALIFIED TEACHER" IS

1. One who holds a certificate in force, granted by:
   a. State authority—§165;
   b. Board of instruction of Normal school—§164;
   c. County board of school examiners—§128;
   d. District board working under special charter, or in incorporated city —§137.

III.—TEACHER'S CERTIFICATE.

1. Necessary because:
   a. School officers cannot contract with an unqualified teacher—§§40, 128;
   b. No public money can be paid to an unqualified teacher—§38;
   c. Districts employing an unqualified teacher cannot draw public moneys—§56.
2. Requirements:
   a. Form of certificate—§128;

b. Examination shall be:
1. Thorough and full—§128;
2. Particular studies required—§128.

c. Teacher must be qualified in respect to:
1. Moral character—§128;
2. Learning—§128;
3. Ability to instruct and govern a school—§128.

3. Gradation:
a. First grade—§129;
b. Second grade—§129;
c. Third grade—§129;
d. Special—§129.

4. Revocation:
a. State certificate—§165;
b. Normal school certificate—§164;
c. County board's certificate—
1. For what reasons—§130;
2. How—§130.

5. Suspension:
a. For what reasons—§130;
b. How—§130.

6. Fees:
a. Institute—§154;
b. Special certificate—§129.

IV.—Teacher's Contract.

1. Parties to the contract—§40.
2. How authorized—§33.
3. Character of contract—§40.
4. Conditions of contract:
a. Time—§40;
b. Wages—§40;
c. Register of school—§40;
d. Teacher to keep himself qualified—§40;
e. Holidays—Appendix A, ¶ 43;
f. Suspension of school—Appendix A, ¶ 44;
g. Services as janitor.
5. To be in duplicate—§40.
6. When may be annulled.

V.—Studies and Text-Books.

1. Who prescribes—§42.

VI.—Authority of a Teacher.

1. Rules and regulations—§44.
2. Suspension and expulsion—§44.
3. Detention of pupils after school.

4. Place:
   a. In the school room;
   b. On way to and from school.
5. Corporal punishment.

VII.—Responsibility of Teacher.

1. Oversight of:
   a. Buildings and apparatus;
   b. Pupils:
      1. In school;
      2. Out of school.
2. Instruction, including:
   a. Arrangement of programme;
   b. Classification of pupils;
   c. Thoroughness;
   d. Approved methods.
3. Government of school:
   a. Efficient;
   b. Proper.

NOTE.—The foregoing is of a general nature and is of interest to school officers and teachers, irrespectively. The following topic has been added as of special interest at this time, in view of the changes in the school law regarding the system of local supervision. It is suggested that it be made the basis of any work which institute instructors may do at a special session of the county and township school officers.

VIII.—Local Supervision.

1. County board of examiners:
   a. Number, how and when chosen, term of office—§125;
   b. Organization, officers, etc.—§126;
   c. Duties of secretary—§133;
   d. Meetings of board:
      1. Annual, for organization—§126;
      2. Special, as board may deem fit, or as called by secretary—§§132, 133.
   e. Examinations:
      1. Regular, public, in March and October, at county seat—§127;
      2. Special, public, time and place fixed by the board—§127;
      3. Special by secretary, (certificate good till next public examination)—§129.
2. Chairman of Township Board of Inspectors.
   a. Duties—§134:
      1. Visiting schools of his township—how often;
      2. Act upon the advice and instructions of the board of school examiners,—joint meeting;
      3. Reports,—to board of school examiners, in general and as to special schools.
3. Joint meeting of county and township officers—§131.
   a. Time, place, purpose.
4. Removals, vacancies, compensation, etc.—§§135, 136.
5. General suggestions.

COMMON ERRORS IN TEACHING.

ERRORS IN THEORY——LEAD TO——ERRORS IN PRACTICE.

I.—Arise from Ignorance.	*I.—Arise from*
1. Through lack of early education. 2. Through errors in early education. 3. Through failure to keep abreast the best thought of the day.	1. Errors in theory; 2. Lack of natural adaptation to the work; 3. Lack of devotion to the work.
II.—Enumeration.	*II.—Enumeration.*
1. Logical reasoning is expected of young pupils: *a.* Concerning subjects of study; *b.* Concerning matters pertaining to school government.	1. *a.* Too much prominence given to solving problems in arithmetic to detriment of drill upon combinations; *b.* Rules and their application in grammar rather than drill in correct use of language; *c.* Unreasonable demands upon pupils.
2. It does not pay to attend educational gatherings and read educational works.	2. *a.* Extreme conservatism; *b.* Little growth; *c.* Rare promotion; *d.* Jealousy toward teachers that do grow.
3. A teacher must think and talk of nothing else than school.	3. *a.* Narrow-mindedness; *b.* Magnifying, unduly, the office of teacher.
4. *a.* The sole object of studying is the acquisition of knowledge; *b.* The work of the teacher is principally to *instruct*; *c.* The object of recitations is merely to determine the daily progress of the pupils.	4. *a.* Pupils learn much; can do nothing; are filled, not strengthened; *b.* Continual pouring in, no training to use,—continual driving of nails, no clinching; *c.* Proper attention not given to making pupils self-confident; teacher does not illustrate and explain properly.
5. The Word Method *solely* is the correct plan of teaching reading.	5. *a.* Pupils not prepared for subsequent work; *b.* Do not have vocal organs cultivated to distinct articulation.
6. Children are taught to read merely that they may entertain others.	6. *a.* Pupils taught to read fluently rather than intelligently; *b.* Good reading in school, poor reading elsewhere; *c.* Taste for reading not cultivated.
7. *a.* Like offenses should receive like punishment; *b.* Stupidity in a pupil is a crime.	7. *a.* Some punishment too severe; others too light; *b.* Pupils unjustly blamed; unnecessarily discouraged.
8. *a.* Parents have no rights except to pay taxes; *b.* Fault-finding by parents is a sure indication that they are unreasonable.	8. *a.* Patrons ignored; *b.* Teacher lacks support; *c.* Failure to study one's own faults.

9. No preparation is necessary for work of lower grade..	9. *a.* No illustrations, or poor ones; *b.* Waste of time; *c.* Unsystematic work; *d.* Failure to make most possible out of lesson.
10. Self-government is not necessary to the government of others.	10. Getting angry: *a.* With pupils; *b.* With parents.
11. Self control is not essential to the best disciplinary and teaching work.	11. Talking: *a.* Too much in: 1. Assertion of authority; 2. Reprimanding offenses; 3. Telling pupils what they can find out themselves; 4. Telling pupils what they can not understand. *b.* Too loud: 1. Wearies teacher unnecessarily; 2. Disturbs school.
12. Quantity rather than quality is the measure of progress.	12. Advancing pupils too rapidly: *a.* Real progress retarded; *b.* Pupils discouraged; *c.* Injustice to subsequent teacher.

ART OF ILLUSTRATION.

I.—Preliminary Remarks.

1. Power of recollection depends upon strength and clearness of conception.
2. Conceptions may be:
   a. Strong and vigorous, or weak and languid;
   b. Clear and distinct, or obscure and indistinct.

II.—Purpose of Illustration.

To render the obscure plain, and the weak vigorous, thus putting the mind in condition to conceive clearly and strongly, and hence to remember the point illustrated.

III.—Illustrations are of Two General Classes.

1. Those addressed to the senses:
   a. To the eye:
      1. Drawing, showing points of resemblance, of contrast;
      2. Manipulation.—Sticks, books, papers, apparatus;
      3. Special gestures:
   b. To the ear,—vocal imitation;
   c. To the eye and ear,—imitations and personations.
2. Those addressed directly to the mind:
   a. Illustrations by examples;

b. Illustrations depending on analogies:
1. Upon a simple analogy;
2. Success depends upon the state of knowledge of those addressed;
3. The analogy may depend upon antecedent analogies;
4. The analogy may be only hinted, not expressed in full.

c. The same proposition may be illustrated by example and analogy.

IV.—General Principles.

1. An illustration should illumine, not obscure the subject; should throw light on the topic, not draw attention to itself.
2. Should be simple, not complex; if complex it may fail of its purpose by directing attention to its parts.
3. General test of an illustration,—Can it be portrayed to the eye?

V.—Skill in Illustration Important to the Teacher.

1. Conception of teacher and pupil may not coincide:
   a. Pupil may fail to grasp the new idea; or
   b. Teacher uncertain that his own conception is grasped by the pupil.
2. Teacher must find some known ground:
   a. That is common to both;
   b. That bears some obvious relation or analogy to the new idea.
3. The novel is thus associated with the familiar, and the known is made to teach the unknown.

VI.—Improvement in this Art.

1. As it appeals to the senses:
   a. Skill in drawing,—studies in form, perspective, shading, practice;
   b. Manipulation,—boldness, knowledge, practice;
   c. Imitation and personation,—voice culture, study of persons with reference to manners and character.
2. As it appeals directly to the mind:
   a. Skill in examples depends upon experience and reading, and demands a retentive and ready memory;
   b. Skill in analogies depends upon extensive and accurate observations of nature and life, and demands an active poetic imagination.

RELATIONS OF PARENT AND TEACHER.

I.—Teachers should Acquaint Parents with, and Interest them in School Work.

1. Indirectly:
   a. Through the pupils;
   b. Through the press;
   c. By the interest manifested by the teacher himself;
   d. By making his teaching a success.

2. Directly:
   a. By mingling and conversing with parents;
   b. By class work done in the presence of parents;
   c. By some public literary enterprises in connection with the school work.

II.—TEACHERS SHOULD SECURE THE COÖPERATION OF PARENTS.

1. In the matter of discipline:
   a. By communication through the pupils;
   b. By direct communication.
2. In the matter of work:
   a. By showing the reasonableness of what is required,—in amount, in its nature, and in the order pursued;
   b. By inciting reasonable pride in the progress of pupils.

III.—THE TEACHER SHOULD PRESERVE A TRUE DIGNITY, AND EXHIBIT PROPER RESPECT FOR PARENTAL AUTHORITY.

1. By avoiding gossip, especially in local affairs;
2. By courtesy towards parents;
3. By a readiness to explain plans and reasons;
4. By a conformity to the wishes of parents so far as may be consistent with the success of school work;
5. By consulting parents in regard to the discipline, studies and morals of their children;
6. By faithfully reporting, when necessary, the standing and deportment of pupils to their parents.

MORALS AND MANNERS.

I.—FUNDAMENTAL IDEAS.

1. Those principles should be inculcated which will develop genuine character and make good citizens in the most comprehensive sense.
2. The good of the State demands moral as well as intellectual and physical training.
3. Correct morals and good manners are necessary to the best interests of society.
4. Morals relate to the things that ought or ought not to be done,—oughtness or ought-notness.
5. Intellectual culture is of little value if it is not associated with true character.

II.—IMPORTANT SUGGESTIONS.

1. A person by the practice of good morals makes himself a good member of society; by attending to good manners, he renders himself an agreeable companion.

2. The unconscious influence of the teacher should ever be kept in mind.
3. The teacher should set just such an example, at all times and in all places, as he would desire his pupils to imitate.
4. That the pupil may discharge his duties freely, he should:
   a. Know what is right;
   b. Feel the claims of the right;
   c. Will to do the right.
5. Moral instruction can best be given by incidents, anecdotes, stories, illustrations of noble principles, biographies of the great and good.
6. The Bible is the fundamental text book on good morals.

REMARK.—Let it be distinctly understood that this does not mean teaching denominational or technical Christianity.

III.—METHOD.

1. Character of the teacher essential:
   (*a*). Prudent; (*b*). Honest; (*c*). Courteous; (*d*). A warm heart; (*e*). An even temper; (*f*). A genial nature; (*g*). An earnest manner; (*h*). A cheerful countenance.
2. The teacher must remember that in the child's moral nature *sympathy* is the ruling impulse, and *influence* the controlling power.
3. He must love and secure the confidence of his pupils before he can influence them rightly.
4. Let the teacher's whole example and life be a standing rebuke to every moral delinquency and an encouragement to every virtue.
5. Take illustrations from: (*a*). Common life; (*b*). School-room, playgrounds, school discipline; (*c*). Relations of pupils to one another, to their parents and teachers.
6. *Special topics*, to be treated of at stated times or as occasion offers: (*a*). Honesty; (*b*). Kindness; (*c*). Truthfulness; (*d*). Unselfishness; (*e*). Respect to superiors; (*f*). Purity in thought, word, and action; (*g*). Obedience to teachers, parents, and civil authorities.
7. Correction of evil and bad habits: idleness, profanity, lying, stealing, obscenity, use of tobacco, intemperance, etc.
8. Formation of good habits:—industry, cleanliness, self-reliance, cheerfulness, promptness.
9. Attack prevailing evils by a kind and thorough general talk; special ones, singly and in private.
10. Illustrate the method of treating one of the evils mentioned in (7).

NOTE.—The topic to be treated of may be announced beforehand, that the pupils may think about it.

PRIMARY READING.

I.—PRELIMINARY REMARKS.

1. Good reading is essentially good talking.
2. The tests of a pupil's reading are:
   a. Does he read as he talks?
   b. Does he read so that every member of the class can easily understand him without looking on the book?

II.—Methods.

Pupils may be successfully taught to read by a variety of methods, as the alphabetic, the phonic, and the word methods; or a combination may be employed. The word method, modified somewhat by the other methods, is now used with excellent results in many of our best schools.

III.—Early Lessons.

1. Place before the class:
   a. An object, as a hat;
   b. A picture of the object;
   c. The name-word of the object.
2. Have pupils point successively to the object, the picture, and the name-word, and tell what each is.
3. Lead pupils to talk about the object, observing that they speak the name-word correctly.
4. Place upon the blackboard, short sentences containing the lesson word, and have the pupils find it.
5. Other name-words, also quality words, may be learned in the same manner, and other words may be introduced until all the words found on the first pages of the reading book used in the school, have been thoroughly learned.
6. Place the words as fast as learned in columns on the blackboard for reviews. "Printing" or "script" may be used.
7. Pupil should copy the lesson on his slate, either by writing or printing.
8. Combine the words learned, into short sentences, which should be placed upon the blackboard.
9. Read the lesson to the class and have it read in concert before the individual members are required to read it.
10. Have the pupil look through each sentence before he attempts to read it.
11. Have pupils read the lesson backwards, to make certain that they know the words.
12. The work should be done from the blackboard, or from charts arranged with reference to the book to be used.
13. The reading exercises should be frequent and very short, not exceeding ten minutes in length.
14. Spelling:
    a. By letters:
       1. Place upon the blackboard some easy word, as bat; separate it into parts, as b-a-t; teach the pupils to recognize the letters and to call them by name;
       2. Proceed in same manner with other words, introducing but one new letter at a time.
    b. By sound:
       1. Write some easy word, as bat; teach the pupils to "spell the word by sound,"—or what is the same thing, to pronounce it slowly and disjointedly, as b-a-t;
       2. Proceed in the same manner with other words, introducing but one new element at a time, as,—

bat,	rat,	cat,
bad,	ran,	cap,
bed,	run,	cup,
bea*d*,	*w*ren,	cap*e*;

3. In words containing silent letters, pupils should be taught to indicate them by canceling them with a short vertical or oblique line.

NOTE.—The time when spelling by letters and by sounds is begun varies with different teachers; some begin with the first words learned; others, when about fifty words have been learned; others, not until pupils enter the first reader.

IV.—BOOK WORK.

1. Assign short lessons; write them on the blackboard and have them copied on the slates; examine each slate with regard to spelling, capitals, and punctuation.
2. Read the lesson to the class when it is assigned.
3. Explain and pronounce every new word in the lesson.
4. Teach pupils to follow the line while others are reading.
5. The articles *a* and *the* should be read as if they formed a syllable of the following word.
6. Never allow a pupil to read the lesson aloud until he can call all the words at sight.
7. Have each pupil read the whole lesson.
8. Do not allow a scholar, when reading, to be interrupted by corrections, or made nervous by upraised hands. Corrections should be made after the reading.
9. Give special attention to correct expression; bring out the thought in the most forcible manner; avoid the high, unnatural school tone, and the slow monotone.
10. Pupils should be taught to give the meaning of the story as soon as they can read it well.
11. Have drill exercises in pronouncing lists of words that pupils frequently mispronounce.
12. Give special drill on elementary sounds, both vowels and consonants.
13. Make the spelling a separate exercise from the reading; but use the words of the reading book, and keep in advance of the reading.
14. Review systematically; have regular *immediate* and *remote* reviews.

ADVANCED READING.

I.—THE END TO BE ACCOMPLISHED.

1. To gain knowledge:
   a. Incidentally from the reading book;
   b. Mainly by securing ability to read all books intelligently.
2. To form the reading habit.
3. To improve in language:
   a. By enlarging the vocabulary;
   b. By learning the meaning and derivation of words.
4. To cultivate the organs of speech:
   a. By correct position of the body;

b. By correct habits of breathing;
c. By distinct articulation.

5. To produce an effect on the mind of the hearer,—to convey knowledge; emphasis, expression, etc.

II.—Lessons.

1. Assignment of lessons:
   a. Length of the lesson;
   b. How to study the lesson:
      1. With reference to some single point in correct habits of reading;
      2. With reference to the subject matter.
   c. Lessons for individual pupils:
      1. For reading;
      2. For recitation.
2. Test exercises, occasionally calling on pupils to read lessons without special preparation.

III.—How to Criticise the Pupil.

1. Upon his understanding of the lesson.
2. Upon some one point, for which special study has been required.
3. General criticism.

NOTE.—In connection with this subject, the instructor should conduct a model exercise in reading, illustrating various methods of criticism.

IV.—Use of the Library and General Reading.

1. For school exercises:
   a. Select the best pieces in various styles;
   b. Have such pieces committed to memory and recited;
   c. Use dialogues and conversations to secure naturalness;
   d. Anecdotes, tales of adventure, etc., can be learned out of the class and told in the class;
   e. Vary the exercise by reading from the platform, reading in front of the class, from a distant part of the room, etc.;
   f. Use imitation-reading sparingly, or not at all. Get life and expression by holding the attention to *what is said.*
2. For the personal culture of the pupil:
   a. Use for reading only *literature* of a high order, such as is directly connected with those purposes for which the school is maintained—citizenship and the art of right living;
   b. If the history of our country, and an account of its government and institutions must be omitted elsewhere, they may find a place here;
   c. A work of hygiene, technology, the science of common things, etc., might be used under the same circumstances. See that the book used is the best of its class;
   d. All school work should be regarded as work in reading;
   e. Reading at home under the advice of the teacher.

ARITHMETIC.

Illustrative Topics.

1. Notation and numeration:
   a. Primary methods;
   b. Advanced methods.
2. Fundamental processes:
   a. Primary, as applied to integers;
   b. Advanced, decimals—multiplication and division.
3. Fractions:
   a. Primary methods;
   b. Advanced methods.
4. Applied work:
   a. Denominate quantities;
   b. Percentage proportion.

NOTE.—The above topics will suggest to experienced instructors a sufficient variety of exercises in the principles and operations of arithmetic. To those who desire more detailed work, reference is made to the following outline:

I.—General Principles.

1. To present and develop any subject in arithmetic to a class of pupils,
   a. Find out:
      1. What they know of arithmetic in general;
      2. What is their stock of knowledge preparatory to a study of the subject in hand.
   b. Have a clear idea of:
      1. The subject to be taught;
      2. The natural divisions of the subject;
      3. Their order and relation;
      4. How much can be mastered by the class.
   c. Then in each division of the subject:
      1. *Teach* the process;
      2. *Test* the pupils' ability to follow and understand the process;
      3. *Train* the pupils to correctness and rapidity of work.
   d. Show the connections and dependencies of the several parts of the subject as to each other.

II.—Primary Numbers.

1. Development and expansion of the idea of number:
   a. Counting to 100 with and without objects;
   b. Counting by 2's, 3's, etc.
2. Writing and reading numbers to 10, 100, 1,000.
3. Development of ground rules:
   a. Simple additions, $2+2=4$, $2+3=5$, etc.;
   b. Simple additions and multiplications, $2+2=4$, two 2's$=4$, $2\times2=4$, etc.;
   c. Simple additions and subtractions, $2+2=4$, $4-2=2$, etc.;
   d. Simple subtractions and divisions, $4-2-2=0$, 4 contains 2 two times, $4\div2=2$, $\frac{1}{2}$ of $4=2$.;

e. Simple multiplications and divisions, $3\times4=12$, $12\div3=4$, etc.;
f. Simple exercises combining the four rules.

NOTE.—In accomplishing the above, use objects when necessary or desirable.

III. —COMMON FRACTIONS.

1. Consideration of denominator and numerator:
   a. Office of each;
   b. Their relations;
   c. Effect of operations upon either,—both.
2. Reductions—cases.
3. Addition and subtraction.
4. Model exercises—topic, *Reduction,* unless otherwise requested by the institute.

NOTE.—It is suggested that on the day previous the instructor ask the members to indicate through the question-box their choice of some topic in fractions.

IV.—DECIMAL FRACTIONS.

1. Relation to integers.
2. Relation to common fractions:
   a. How derived from;
   b. How changed to.
3. Notation:
   a. Differs from integers;
   b. Explain.
4. Numeration.
5. Addition and subtraction.
6. Multiplication—deduce rule for pointing.
7. Division—deduce rule for pointing.

V.—SLATE AND BOARD WORK FOR ADVANCED PRIMARY.

1. Rapid reading of numbers carried to *nine places.*
2. Writing numbers from dictation, beginning with the smaller ones and increasing gradually to those of *nine places.*
3. Work designed to secure facility in the four ground rules.
4. Combinations of the four rules.

VI.—COMMON FRACTIONS.

1. Multiplication—deduce the rule.
2. Division—deduce the rule.
3. Model exercise—topic, *Division of Fractions,* unless otherwise requested by the institute.

VII.—PERCENTAGE.

Model exercise—topic to be designated by the institute.

VIII.—Suggestions.

1. Time to be given to the subject:
   a. By primary classes;
   b. By advanced classes;
   c. For oral or mental exercises;
   d. For written exercises;
2. In slate and blackboard work require:
   a. Correctness;
   b. Rapidity;
   c. Neatness.
3. The rule should be:
   a. Elicited from the pupil as an expression of his understanding of the operation;
   b. Then revised by comparison with the rule in the text-book.
4. The explanation should be a demonstration of the correctness of the rule, connecting the operation with the principles upon which it depends—not a mere description.
5. Rate of advancement of pupils.
6. Constant attention to rapid drill work.
7. Reviews should be frequent.
8. Examinations should be honest and thorough.

GEOGRAPHY.

I.—The Nature of Geographical Science.

1. The unit to be studied and comprehended is the globe, considered with reference to its surface.
2. As only the merest fraction of this unit can come under the observation of the pupil, his knowledge of it must be derived chiefly from books.
3. The comprehensive study of geography involves a large and constant exercise of the imagination.
4. Geographical knowledge consists:
   a. Of mere facts, and
   b. Of facts that can be explained by known causes.

II.—The Ends of Geographical Study.

1. The acquisition of clearly defined notions, constituting what is known as useful knowledge.
2. Through the acquisition of this knowledge, the development of the intelligence.
3. Nothing contributes so powerfully toward broadening man's sympathies and making him cosmopolitan and catholic, as geographical knowledge.
4. In this day of universal reading, geography should be one of the chief topics of instruction.

III.—Preparatory Course.

1. The first lessons may be on place, distance, and direction:
   a. Beginning with the school room, let the pupil note its form, size, parts, and the position of objects in the room. Let all names and terms used be pictured out so that they may ever after be a part of the child's vocabulary;
   b. Teach the points of the compass, and let the pupil locate the parts of the room and the objects within with reference to those points;
   c. Let the pupil draw on his slate and on the blackboard an outline of the room and locate on his map the objects named;
   d. Let him describe, orally or in writing, the location of these points.

Thus the pupil's order of work should be in this, as in all subsequent study: *Observe* (or study), *draw, describe.*

2. Continue these lessons on the *school grounds,* the district or village, and the township, until the pupil can map out and describe all objects within his knowledge.

3. Let these exercises be followed by a series of object lessons:
   a. On the surface of the land,—including hills, valleys, plains, mountains; soils, rock, clay, sand, etc., and their uses;
   b. On water in its various conditions and forms, as: ponds, lakes, rivers, and their parts; vapor, clouds, dew, frost, rain, hail, etc.;

NOTE.—The pupil may continue to map out his county and to locate on it any objects referred to in the preceding lessons. The exercise in description should be continued.

   c. On heat, cold, moisture, dryness, the seasons; thus developing the idea of climate;
   d. On the vegetable productions of the land;
   e. On animals, wild and domestic, their habits and modes of life;
   f. On the people and their occupations, society, and government.

4. The pupil may now study the geography of Michigan. Pursue the study in the order as above,—draw and describe.

IV.—The Formal or Text-book Course.

Proceeding by analysis, we first consider the earth's surface as a whole, then in its parts, each part being taken as a unit. For this work the following is the logical:

1. Order of study:
   a. The outline,—with adjacent islands, if any;
   b. The surface,—mountain systems, valleys, etc.;
   c. Inland waters,—lakes, seas, and river-systems;
   d. Climate;
   e. Vegetation;
   f. Animals;
   g. Inhabitants;
   h. Industries and occupations;
   i. Political geography;
   j. History and government.

2. Method of study:
   a. A study of the map by inspection (observation);
   b. Map-drawing, to secure a closer and more careful study;

c. A careful reading, by topics, of descriptive matter in the text-book and such other books and papers as can be procured;
d. Written exercises, by question and by topic.

UNITED STATES HISTORY.

I.—Objects to be Obtained.

1. Creation in pupils of a taste for the reading and study of history.
2. Information on the part of pupils as to books to be read, and as to methods of reading and study.
3. Knowledge:
   a. Which shall serve as a basis for future reading and study;
   b. Which shall render reading intelligible by enabling the pupil to understand historical references.

II.—General Plan of Teaching.

1. Select some topic for study.
2. Find out through the pupils what text-books and other works on U. S. History are in the neighborhood, and can be made available.
3. Read from the different books and converse with the class on the topic.
4. Teacher and pupils read in class, stories, anecdotes, and biographical sketches from other books.
5. Stories and anecdotes bearing on the topic may be given orally by members of the class, but in all such cases "authorities" should be required of the pupils.
6. Reproduction by pupils, both orally and in writing, of the substance of what has been read or related.
7. Constant use of maps to fix locations. It is exceedingly desirable to keep before the class an outline map of North America, including the West Indies.
8. Reference to books of history and biography for subsequent reading.
9. Directions and suggestions as to future reading and study.

III.—Topics for Study.

1. Aborigines:
   a. Prehistoric;
   b. Indians—color, size, occupation, dwellings, implements, weapons, money, language, picture-writing, government, religion, ceremonies, etc.
2. Discoveries:
   a. Northmen;
   b. Columbus,—theories, voyages;
   c. The Cabots;
   d. Vespucci.
3. Explorations:
   a. Spanish—results:
      1. Ponce de Leon;
      2. Balboa;

3. De Soto.

b. French—results:

1. Verrazzani;
2. Cartier;
3. Champlain;
4. Jesuits;
5. Marquette;
6. La Salle.

c. English—results:

1. Drake;
2. Raleigh;
3. London company;
4. Plymouth company.

d. Dutch—Hudson—results.

4. Settlements and colonies:

a. Virginia—name, John Smith, charter.

b. Massachusetts:

1. Plymouth colony—settlement, religion;
2. Bay colony—religious troubles, Roger Williams, Quakers.

c. New Hampshire—early name.

d. Connecticut—charter.

e. Rhode Island—religious freedom.

f. New York—Dutch governors, English governors.

g. New Jersey.

h. Pennsylvania—William Penn, etc.

i. Delaware.

k. Maryland—name, Catholic and Protestant.

l. Carolinas—Huguenots.

m. Division of Carolinas.

n. Georgia—character of settlers.

5. Revolutionary war:

a. Condition of the colonies at origin;

b. Causes;

c. Political results.

6. U. S. civil and political history.

a. National:

1. Declaration of independence;
2. Constitution—origin, amendments, etc.;
3. Administrations in order;
4. Political parties;
5. U. S. Bank trouble;
6. Admission of States;
7. Reconstruction.

b. International:

1. Treaties—Indian, foreign;
2. Monroe doctrine, etc.

7. Slavery;

Introduction, spread, agitation, Missouri compromise, fugitive slave law, Kansas-Nebraska bill, Dred Scott decision, John Brown, emancipation.

8. Growth and development:

a. Territory;

1. Thirteen colonies, and N. W. and S. W. territories;

2. Oregon and Louisiana;
3. Florida;
4. Texas;
5. California, etc. Gadsden Purchase;
6. Alaska.

b. Population:
1. At time of Revolution;
2. 1800–10–20–30, etc.

c. Agriculture, commerce, manufactures, and the arts, literature, education, etc.

9. Wars:
a. Indian—Virginia, *King Philip*, Pequod, Pontiac, *Miamis*, Creek, Black Hawk, *Florida*, West and North-West;
b. Foreign—King William's, Queen Anne's, King George's, *French and Indian*, *The Revolution*, Tripolitan, *1812*, Algiers, *Mexican*;
c. Civil—Bacon's rebellion, Clayborne's rebellion, Protestant and Catholic, whisky insurrection, Dorr rebellion, anti-rent, Mormon, *secession*.

NOTE.—Causes, conduct, and result, according to the capacity of the school, and the time at command. The most important wars are here indicated by italics.

IV.—Chronological Chart.

From 1475 to date, may be arranged somewhat after the style of Adams's historical chart. The heavy vertical lines should be so placed as to inclose what are ordinarily called the "*Epochs*" of our history, with the name of each period written at the top; thus the whole subject will be presented to the eye, arranged by both the "Topical" and "Epoch" methods, according as we read from left to right, or from top to bottom.

V.—Books.

1. To be read;
2. Reference.

NOTE.—To incite and facilitate future reading and study of U. S. History, the teacher should see to it that the pupil has a list of the best books on the subject. The largest books are not always the best.

PHYSIOLOGY.

I.—General Exercise.

1. The why, or reason for calling the attention of teachers to the subject:
a. Importance of the subject;
b. Value of health and physical development;
c. Ignorance of hygienic laws;
d. The teacher's responsibility in the matter of his pupil's health.
2. Divisions of the subject, and definitions:
a. Three divisions,—anatomy, physiology, hygiene;
b. Define these terms and show their relations to each other.

3. Health and disease:
   a. Definitions,—relations to each other;
   b. Relations to personal habits and to external causes.

II.—School Hygiene.

1. Location of school-house:
   a. Should be accessibly placed;
   b. Necessity of good drainage; proper disposition of shade and sunlight; pleasant outlook.
2. School premises:
   a. Examine them before opening school term;
   b. Insist upon cleansing, repairs, and supplies;
   c. Inspect often and arrange for care of out-buildings;
   d. Disinfectants,—copperas, chloride of lime, road-dust.
3. School room:
   a. Heating, proper temperature;
   b. Ventilation,—stove jacket, cold air duct, board under lower window sash; air currents; open doors and windows at recesses;
   c. Light,—large high windows, light entering from above and at the sides; the desks protected from direct sunlight;
   d. Furniture,—comfortable, adapted to its purpose.
4. The pupils:
   a. Posture,—sitting and standing, lounging habits;
   b. Length of recitations, study hours;
   c. Sports on the play-ground, not too much interference, calisthenic exercises;
   d. Temperaments, disabilities;
   e. Contagious diseases, small pox and vaccination, scarlet-fever, diphtheria, mumps, measles, whooping-cough, etc.;
   f. Cleanliness and habits;
   g. Sudden illness and accidents,—fainting fits, cuts, broken bones, snake bite, drowning.

III.—Typical Oral Lessons.

1. Respiration:
   a. Anatomy of the respiratory organs,—nostrils, trachea, bronchial tubes, lungs, air cells, diaphragm, intercostal and abdominal muscles;
   b. Physiology of respiration,—how we breathe, air, pressure, and vacua; what we breathe and why we breathe, animal heat, oxidation of waste of matter, rate of breathing;
   c. Hygiene of respiration,—good breathing, obstruction, constrained posture, tight clothing;—air impurities, experiments with carbonic acid and candle.
2. The eye and vision:
   a. Study the anatomy of the eye by means of a dissection, a model, or by blackboard drawing,—the form, the muscles, coats, pupil, crystalline lens, humors, nerve;
   b. Study the physiology of the eye,—refraction of light, effect of lenses, camera obscura, images; optic nerve and vision;—the adjustments

of the eye, of the pupil, of the crystalline lens, near-sightedness explained.

c. The hygiene of the eye,—rules for the proper use and care of the eye:

1. Have sufficient light,—twilight, firelight, etc.;
2. Let the light fall upon the book or work,—for writing, drawing, etc., it should fall over the left shoulder;
3. Avoid stooping or uneasy posture,—in reading the book should be held up before the eye;
4. The book should be held not less than twelve and not more than eighteen inches from the eye,—near-sightedness;
5. Avoid the angle of total reflection;
6. Avoid small and bad prints;
7. Don't read in a smoky or dusty atmosphere;
8. Avoid reading while walking or driving;
9. Don't overtax the eyes by too long use;
10. Cleanse the eyes frequently with cool or tepid water;
11. Try to protect your pupils against all accidents to the eyes.

NOTE 1.—In case but two exercises can be given the first two are recommended. If but one can be given, the second is recommended.

NOTE 2.—If preferred, lessons similar to those in exercise III can be given upon such topics as Digestion, Circulation, Waste and Repair, the Nervous System, etc. The aim should be toward practical hygienic rules of living, rather than theoretical or technical matters.

OUTLINE OF A COURSE IN ELEMENTARY DRAWING.

I.—STRAIGHT LINES.

1. Distinction between *vertical, horizontal,* and *oblique lines.*
2. Drill in drawing vertical, horizontal, and oblique lines.
3. Combinations of *two* straight lines:
   - *a.* Dictate combinations;
   - *b.* Draw forms (flat) composed of;
   - *c.* Group combinations by twos, fours, sixes, etc.;
   - *d.* Draw preceding exercises from memory.
4. Combinations of *three* straight lines:
   - *a.* Dictate combinations;
   - *b.* Draw forms bounded by;
   - *c.* Group combinations by twos, fours, sixes, etc.;
   - *d.* Draw any previous work from memory.
5. Distinction between *right, acute,* and *obtuse angles.*
6. Drill in drawing angles.
7. Combinations of *two* angles (*four* straight lines); or, combinations of *four* straight lines:
   - *a.* Dictate combinations;
   - *b.* Draw forms bounded by, and name the lines and angles;
   - *c.* Group combinations;
   - *d.* Draw any preceding exercise from memory.
8. Distinction between *right-angled triangles, acute-angled triangles,* and *obtuse-angled triangles.*

9. Drill in drawing triangles.
10. Combinations of *two, four, six,* etc., triangles:
    a. Dictate combinations;
    b. Draw forms involving, and name lines, angles, and triangles;
    c. Group combinations;
    d. Draw preceding exercises from memory.
11. Distinction between *square, oblong, rhomb, rhombus, etc.*
12. Drill in drawing square, oblong, etc.
13. Combinations of *squares, oblongs,* etc.:
    a. Dictate combinations;
    b. Draw forms involving;
    c. Group combinations;
    d. Draw any preceding exercise from memory.

II.—Curved Lines.

1. Teach what is meant by a *curved line.*
2. Drill in drawing curved lines.
3. Combinations of *two* curved lines.
    a. Dictate combinations;
    b. Draw forms containing;
    c. Group combinations by twos, fours, sixes, etc.
    d. Draw from memory.
4. Combinations of *three, four,* etc., curved lines, as above.

VOCAL MUSIC.

I.—Reasons why Vocal Music should be taught in Public Schools.

1.—The influence which music has always exerted, and its consequent almost universal use, give it a prominence as a branch of education, that demands more general attention.

2. Its study should be commenced in childhood, before the organs of hearing and vocalization become so fixed that musical sounds can neither be appreciated nor produced.

3. In a sanitary view singing is one of the best promoters of health.

4. Its good influence upon the morals and deportment of the young is incalculable.

5. The mental discipline acquired in learning the science gives it as high a position as any other study.

6. Music, as a means of vocal culture, is unequaled, and greatly aids in making good readers and speakers.

7. In the light of economy, the cost for tuition to the parent, in the way of private instruction, would be greatly lessened by having music taught in the public schools; while those who, from poverty, would otherwise never receive any musical training, would be greatly benefited.

II.—How Shall it be Taught?

1. By the regular teachers, *all of whom*, regardless of previous special preparation or natural talent, if so disposed, may obtain good results.
2. By devoting, as a change, and thus as a relief from other studies, a few minutes at various intervals, to the amount of fifteen or twenty minutes in each day.
3. By having exercises and songs placed upon the blackboard, to be copied by pupils as desired, and having the same practiced until mastered.

III.—General Points to be Observed.

1. Position of the body:
   - *a.* Body erect, not leaning in any direction;
   - *b.* Feet placed squarely upon the floor.
2. Exercises and songs within the compass of pupils' voices.
3. Singing at and in correct pitch:
   - *a.* Use a tuning-fork, pitch-pipe, organ, piano, or other instrument, to obtain the same.
4. Proper use of the voice:
   - *a.* Breathing so as to produce lung-power;
   - *b.* Position of the throat, tongue, and mouth;
   - *c.* Singing softly and smoothly to secure good quality of utterance.
5. Intelligent expression:
   - *a.* Distinct articulation;
   - *b.* Correct sounds of vowels and consonants;
   - *c.* Breathing at proper places;
   - *d.* Proper movement and accentuation.

IV.—Course of Instruction.

1. General arrangements:
   - *a.* School organized into classes according to ability of pupils;
   - *b.* Each class to have special work suitable for it;
   - *c.* School to have exercises and songs within the ability of all;
   - *d.* Entire school to be interested.
2. Younger classes:
   - *a.* Rote exercises and songs;
   - *b.* Easy lessons in reading signs;
   - *c.* Establish the relation between signs and tones;
   - *d.* Exercises in keeping time;
   - *e.* Exercises in notes in different keys, without theory;
   - *f.* Other simple features as occasion may require.
3. Older classes:
   - *a.* Exercises in songs in one, two, or more parts, to be learned by note.
   - *b.* Writing music on slates and blackboard;
   - *c.* Practical knowledge of
     1. Different kinds of measures;
     2. Usual kinds of notes and rests;
     3. Ordinary intervals in the scale;
     4. Easier accidentals;
     5. Different keys;
     6. Other features as needed.

PROGRAMME FOR INSTITUTES, 1883-4.

Hour.	Time.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
9:00 A. M.	15 Minutes.	----------	Opening Exercises.	Opening Exercises.	Opening Exercises.	Opening Exercises.
9:15 A. M.	40 Minutes.	----------	Primary Reading.	Primary Reading.	Advanced Reading.	Advanced Reading.
9:55 A. M.	40 Minutes.	Organization.	Geography.	Geography.	U. S. History.	U. S. History.
10:35 A. M.	15 Minutes.	RECESS.	RECESS.	RECESS.	RECESS.	RECESS.
10:50 A. M.	35 Minutes.	Opening Work.	Arithmetic.	Arithmetic.	Arithmetic.	School Law.
11:25 A. M.	35 Minutes.	Arithmetic.	Language Lessons.	Language Lessons.	Language Lessons.	Technical Grammar.
2:00 P. M.	35 Minutes.	Morals and Manners.	Elementary Sounds.	Organization of District Schools, I, II.	Grading of District Schools, III.	School Government.
2:35 P. M.	35 Minutes.	Effects of Alcoholic Drinks and Stimul'ts.	Vocal Music.	Course of Self-Training.	Civil Government.	Civil Government.
3:10 P. M.	15 Minutes.	RECESS.	RECESS.	RECESS.	RECESS.	RECESS.
2:25 P. M.	35 Minutes.	Language Lessons.	----------	Art of Questioning.	Methods in Class Work.	----------
4:00 P. M.	30 Minutes.	Elementary Sounds.	Spelling.	Spelling.	Penmanship.	Query Box.
8:00 P. M.	----------	----------	----------	----------	----------	----------

It is suggested that the Conductor insert, in the blank spaces of the above programme, such topics or exercises as, in his judgment, will best meet the wants of the teachers in attendance upon the Institute at which it is designed to be used. An additional exercise in Arithmetic, School Hygiene, and School Government may be found to be especially profitable; while Drawing and many of the more general topics treated in the Manual will furnish abundant material from which to select. Particular attention is called to the desirability of devoting some time to model class exercises, and to class and normal work, if time and circumstances will permit.

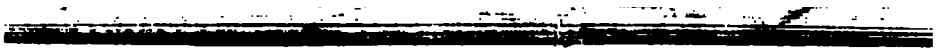
COURSE OF STUDY

AND

DAILY PROGRAMME

FOR

COUNTRY SCHOOLS.



COURSE OF STUDY FOR COUNTRY SCHOOLS.

INTRODUCTORY.

In July, 1882, the Superintendent of Public Instruction issued a circular containing a course of study for the ungraded district schools. At the summer series of institutes this circular was placed in the hands of those teachers present, with the request that they make use of it, as far as possible, in classifying pupils and arranging a course of study for their schools. Many teachers in the ungraded districts adopted this as the basis upon which to systematize their work, and from various parts of the State reports come in that its adoption has been fruitful in good results.

In several of the States special attention has recently been given to the grading of the country schools, and the advanced standing taken by those thus graded has led the best educators to unite in the conviction that the work in our common schools may be made more practical, efficient, and economical by adopting a regular course of study.

The responsibility of adopting or rejecting this course of study rests with the school boards and teachers in charge of our common schools. The State Superintendent, in arranging and prescribing this course of study, exercises only an advisory power. The duties of his office require him to diffuse, as extensively as possible, a knowledge of the defects in the working of the public schools, and the best means and the most improved methods to be employed to advance their standing.

The course here presented embraces about the same amount of work as was required in the last year's circular, and is designed to advance the pupil as far as the 9th year in the ordinary graded schools, or just prepare him to enter the high school. It embraces all those studies in which teachers are required by law to be examined for a third-grade certificate. The subjects are so arranged as to give the pupil, as far as possible, in an elementary way, a complete education and a symmetrical development at each step in the course.

The work is classified in four grades, on the natural relations of the studies to each other, and with reference to the rational development of the faculties of the child. The attainments of pupils in reading, especially of the younger ones, can be taken largely, but not wholly, as a basis for placing each pupil in the grade. On account of irregularity in attendance the teacher will find but few of the older ones belonging entirely in one grade; but by holding to the course laid out and employing the accompanying daily programme a sufficient amount of suitable work may be arranged for each pupil and the number of daily recitations reduced to a minimum.

The term *grade* does not indicate any particular age or any fixed length of time during which the pupil must have attended school, but refers to a certain degree of advancement he has made in the studies prescribed. In assigning work to those entering school, it is advised that the teacher adjust the pupil to the prescribed course and not the course to the pupil; also, that the daily programme be followed as closely as possible in the arrangement of recitations. In this way only can be realized those advantages which are claimed for the graded course in the country schools.

The severest criticisms of educators upon the Michigan school-system are directed to the ungraded schools, and it is hoped that examiners, inspectors, school boards, and teachers will coöperate in securing the adoption of this course of study in the ungraded districts, and that each will aid in giving it force and effect in the schools under his charge.

It is recommended that the course of study and daily programme be pasted to a card-board and placed in the school-room for reference and guidance from term to term.

HERSCHEL R. GASS,
Superintendent of Public Instruction.

LANSING, MICH., July, 1883.

TABULAR VIEW OF COURSE OF STUDY FOR DISTRICT SCHOOLS.

Grade.	Reading.	Spelling.	Writing.	Arithmetic.	Language.	Geography.
I.—Two Years.	First and Second Readers.	Oral and Written; Words from Reading Lessons.	On Slates, the Words learned.	Decimal Notation to 1,000; Roman Notation to 50; Multiplication Table to 6's Four Fundamental Operations, largest No. being 1,000.	Telling and Asking Sentences; Pictures—Talks about; Copying and Making Sentences.	Oral Lessons on Globe; Home Geography, oral and sketched.
II.—Two Years.	Third Reader.	Oral and Written; Words from Reading Lessons.	Copy Books of some series.	Decimal Notation to 1,000,000; Roman Notation to 100; Multip cation Table completed Fundamental Operations in dec. notation to millions.	Continue former Exercises; Common Errors Corrected; Writing from Dictation Composing Sentences containing given words.	Co. and State Map; First Book of Series begun; Oral Exercises with Globe; Map Sketching.
III.—Two Years.	Fourth Reader.	Oral and Written; Words from Reading Lessons and Spelling Book.	Copy Books of some series.	Factoring Numbers; Common and Decimal Fractions; Compound Numbers—the tables in commonest use.	Imaginary Stories; Kinds of Words and Sentences, Subject and Predicate, Letter Writing.	Use of Globe Continued; First Book completed; Second Book of Series; Map Drawing.
IV.—Two Years.	Fifth Reader.	Written Mainly; Words from Reading Lessons and Spelling Book.	Copy Books of some series.	Compound Numbers completed; Business Forms; Ratio and Proportion; Percentage; Square and Cube Root.	Word studies; Composition and Letter Writing; Text-book on Grammar.	Second Book completed; U. S. History and Civil Government.

GENERAL NOTE.

The course of study as here laid down contemplates the use of the following number of text books in the various subjects: *In reading, five books*, including the primer or first book; *in spelling, one book; in writing*, any common school series of copy books; *in arithmetic, two books; in geography, two books; in grammar, one book; in United States History, one book.* In addition, the pupil should have slate and slate pencil, paper and lead pencil, and, if possible, a school dictionary. Those who use copy books should also have pen and ink.

The teacher should have some manual of object-teaching, elementary works on all subjects to be taught orally (hygiene, effects of alcoholic drinks and stimulants, civil government, etc.), and other convenient books of reference.

The school-room should be provided with dictionary, globe, outline maps, sufficient blackboard, crayons, and pointers, and such other conveniences as may be possible.

Classes should be heard on the following

DAILY PROGRAMME.

TIME.		RECITATIONS.	STUDY.			
Begin	Length.	All Grades.	Grade I.	Grade II.	Grade III.	Grade IV.
A. M. 9:00	MIN. 5	---- OPENING.	----------	----------	----------	----------
9:05	10	1. FIRST READER.	Second Reader.	Arithmetic.	Arithmetic.	Arithmetic.
9:15	15	2. SECOND READER.	First Reader.	Arithmetic.	Arithmetic.	Arithmetic.
9:30	20	3. ARITHMETIC.	Slate Writing.	----------	Arithmetic.	Arithmetic.
9:50	20	4. ARITHMETIC.	Numbers.	Arithmetic.	----------	Arithmetic.
10:10	20	5. ARITHMETIC.	Numbers.	Geography.	Geography.	----------
10:30	15	RECESS.				
10:45	10	6. NUMBERS.	----------	Geography.	Geography.	Geography.
10:55	15	7. GEOGRAPHY.	Copying.	----------	Geography,	----------
11:10	20	8. GEOGRAPHY.	Copying.	Language.	----------	History.
11:30	20	9. GEOGRAPHY OR HISTORY.	Reading.	Arithmetic.	Arithmetic.	----------
11:50	10	10. FIRST READER.	Second Reader.	Arithmetic.	Arithmetic.	Reading or Civil Governmen t.
P.M. 1:00	20	1. READING OR GOVERNMENT.	Slate Work.	Language.	Reading.	----------
1:20	20	2. READING.	Slate Work.	Language.	----------	Grammar.
1:40	10	3. FIRST READER.	Second Reader.	Reading.	Reading.	Language.
1:50	10	4. SECOND READER.	First Reader.	Reading.	Language.	Grammar.
2:00	15	5. READING.	Reading.	----------	Language.	Grammar.
2:15	15	6. WRITING.	----------	----------	----------	----------
2:30	15	RECESS.				
2:45	20	7. LANGUAGE OR GRAMMAR.	Spelling.	Language.	Language.	----------
3:05	15	8. LANGUAGE.	Spelling.	----------	----------	Civil Government.
3:20	10	9. SPELLING.	----------	Spelling.	Spelling.	----------
3:30	10	10. SPELLING.	Slate Work.	----------	----------	Spelling.
3:40	10	11 SPELLING.	Slate Work.	Copying.	Arithmetic.	----------
3:50	10	12. ORAL LESSONS.	----------	----------	----------	----------

The heavy-f ced type indicates recitations, the common type the times when classes should study particular subjects. Where recitations are indicated for two grades at the same time they will recite together. History and Civil Government should be taken up after Geography is completed, usually at the close of the seventh year.

NOTES.

FIRST GRADE.

1. *Reading.*—Careful attention should be given to the first lessons. Master each lesson before advancing to another. Review several lessons each day, and occasionally require pupils to read new lessons of the same grade at sight. Have pupils memorize choice selections from reader and other books. Teach the use of the diacritical marks as they appear in the lessons.

2. *Spelling.*—Most of the spelling in this section should be in connection with, or preparatory to, the reading lesson and exercises. The spelling exercise of both classes united should be for review and for the purpose of correcting mistakes in spelling of individual pupils in the other exercises of the day.

3. *Writing.*—Prepare slate-work for pupils at their seats. Require pupils to practice writing figures as well as letters and words in script. Teach pupils to write, not print, from the outset.

4. *Numbers.*—The whole grade in one class. Have pupils learn to use the common signs of the arithmetical operations, (+, -, x, ÷, =,) and to write out the simple combinations of numbers on the slate and board.

5. *Geography and Language.*—The whole section in one class. Ten minutes daily. Teach a few things simply and plainly. Do not attempt a wide range. Land, water, plants, animals, location, direction, distance. Common errors of speech. Capitals and marks used in the books.

SECOND GRADE.

1. *Reading.*—Pay especial attention to catching and expressing the thought of the writer. Secure distinct articulation. Cultivate pleasant tones. Have pupils select from other books and bring to school choice selections to be read in class and memorized.

2. *Spelling.*—The regular spelling exercise should be mainly for test spelling by written reviews. Preserve lists of words commonly misspelled for test reviews.

3. *Arithmetic.*—Much of the time of this grade should be given to fixing fundamental principles. Do every thing thoroughly before it is passed by. Secure accuracy and rapidity in writing numbers from dictation. Practice rapidity.

4. *Geography.*—Pupils should sketch maps in outline with not too full detail. Map drawing is a means rather than the end of geographical study. Require occasional abstracts in writing as review exercises. Use outline or blackboard maps for class concert drill. First book of series begun at end of third year.

5. *Language.*—The teacher should use some good work as a guide, not as a text-book. Stories told or read. The pupils should be required to reproduce these in writing at a subsequent time.

THIRD GRADE.

1. *Reading.*—As in preceding grades, teach the elementary sounds and diacritical marks in connection with the reading lessons. Aim to secure a mastery of the meaning of words. Use of dictionary taught.

2. *Spelling.*—Let there be oral, written, and phonic spelling. Frequent reviews of misspelled words. Occasional dictation exercises.

3. *Arithmetic.*—Abundant exercise in the solution of miscellaneous, practical problems. Teach the common measurements used in papering, carpeting, cord-wood, bins, boxes, etc.

4. *Geography.*—Make constant use of outline and other maps. Study comparative size of countries and States. Relative latitude of cities. Routes of travel and commerce.

5. *Language.*—Changing form of sentences. Abstracts of reading lessons. Full instruction in letter writing.

FOURTH GRADE.

1. So far as possible, all the pupils of this grade should be together in their work and should understand that they form *the advanced class* in the school.

2. *Reading.*—This exercise should alternate with that in Civil Government, and, for a change, the text-book in history will furnish many excellent reading lessons. Have good selections from the reader committed to memory and recited singly and in concert. Newspapers,—current history.

3. *Spelling.*—Words from the speller and frequent dictation exercises, with reference to capitals and punctuation. Encourage the use of dictionary for learning sounds of letters and pronunciation. Carefully review by lists of misspelled words as in former grades.

4. *Arithmetic.*—Give special attention to business forms and short processes. Teach pupils to make out bills. Review the measurements commonly used in business and the industries. Cultivate rapidity and clearness of analysis. Thoroughly master the applications of percentage to ordinary business operations.

5. *U. S. History*—If a uniform text-book can be had, follow it. If not, teach topically, the pupils using such books as they have or can borrow. In connection with this subject teach orally the civil government of Michigan and of the United States.

6. Grammar.—Follow the text-book. Have frequent exercises in composition and letter writing. Teach correct forms. Occasional exercises in paraphrasing, reading, or other lessons and short stories.

REMARK.

The adoption of this course of study, does not necessarily preclude the possibility of pursuing branches not therein named, if it be desirable to do so and time be found to devote to them. This should not be done, however, to the exclusion of any of the studies of the regular course.

GRADING.

The work of classifying or grading the pupils must necessarily devolve upon the teacher. His first duty, then, is to make himself thoroughly acquainted with the course of study as given on the preceding page and the principles involved therein. The work of each grade will cover an average period of about two years.

In the schools where grading has already been attempted and records left, the teacher will not experience much difficulty in carrying out the requirements of this scheme; in other schools this cannot be well done until the attainments of the pupils become known through class recitations. The question now arises,—Which grade is each of these pupils prepared to enter upon? It will be found that some children are well advanced in certain studies and very backward in others. In such cases the teacher must be guided by the average scholarship of the pupil and by his good judgment, and urge the pupils to pay especial attention to those studies in which they are deficient, so as to avoid a partial or one-sided education, and to prepare themselves for the final examinations in the grade. Certificates of promotion should be given to successful candidates, and full records of examinations, promotions, and subjects taught left for the use and guidance of succeeding teachers.

N. B.—The Course of Study and the Daily Programme should be pasted on card-board and hung up in a conspicuous place in the school-room, for reference by patrons, teacher, and pupils.

RECORDS.

Following is a simple plan of keeping a list of the pupils as to the grades in which they belong, standing, etc., for the use of successors in school:

PUPILS WHOLLY IN GRADE I.

No.	Names.	Age.	Days Present.	Remarks as to Standing and Ability to Advance.
1				
2				
etc.				

Each teacher should place this or a similar record in the school register, and fill it out for the use of his successor. For the course of study, as here arranged, five tablets will be required: one for each of the four grades, numbered I., II., III., IV., and one for those pupils who are irregular in the course. The studies pursued should be placed opposite those names recorded in tablet V., or the irregular list, to show *their* work.

By this means of keeping the standing of the pupils it is hoped that the course of study may be better maintained and the pupils regularly advanced from term to term. Every teacher is urged to leave *some* record of the standing and classification of pupils for future guidance.

DECISIONS

OF THE

SUPREME COURT OF MICHIGAN

ON MATTERS OF

EDUCATIONAL INTEREST.

FILED DURING 1883.

DECISIONS OF THE SUPREME COURT.

I.

Condemnation of Sites for School Houses.

William Heck *v.* School District No. 2, of the township of Essex. Case from Clinton; filed January 5, 1883.

Campbell, Justice:

This is a proceeding to review the action of the Circuit Court for the county of Clinton in confirming the condemnation of land for the site of a school-house. The petition, which was presented to a Justice of the Peace, set forth a designation by the school inspector, and inability to agree with the owner.

It appears that no evidence was laid before the jury of any action had to select the location. It further appears that no notice was taken of Caroline Heck, who owns one-half of the land, which was dealt with throughout as land of William Heck. On the final proceedings in the Circuit Court one of the school officers undertook to show by affidavit that at the annual meeting the school district had failed to agree upon a site, and asked the inspectors to do so. Nothing was produced from the records on the subject.

The case shows that there was a site already in use.

The statute providing for the condemnation of land for school purposes only permits it when a site has been lawfully determined. Laws 1881, p. 184.*

It confines the power of the inspectors to cases where no site can be established by the inhabitants. It does not seem to contemplate that the designation of more than one site shall be made in any case except by the inhabitants themselves.

The statute also distinctly provides that when a jury is sworn proof shall be made to the jury of a legal selection. (§ 2.) The justice to whom application is made is not empowered to hear evidence or pass upon any of the merits of

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* Act 164 of 1881, Public Acts, p. 184.

CHAPTER VIII.

SITES FOR SCHOOL-HOUSES.

SECTION 1. The qualified voters of any school district, when lawfully assembled, may designate by a vote of two-thirds of those present, such number of sites as may be desired for school-houses, and may change the same by a similar vote at any annual meeting. When no site can be established by such inhabitants as aforesaid, the school inspectors of the township or townships in which the district is situated shall determine where such site shall be, and their determination shall be certified to the director of the district, and shall be final, subject to alteration afterward by the inspectors, on the written request of two-thirds of the qualified voters of the district, or by two-thirds of the qualified voters agreeing upon a site at a district meeting lawfully called.

the case. The facts must, therefore, be shown to the body which is to pass upon the questions on which the right to have a condemnation depends. We need not, at this time, consider whether the jury would be bound to find necessity on the mere action designating the site. They certainly cannot do so without proof of such designation. This must be proved by the records and cannot be taken for granted.

Without discussing the other questions on record, we think the failure to show any lawful designation was fatal to the entire proceeding, which must be quashed, with costs.

(The other justices concurred).

II.

Sale of School Orders.

Albert S. White *et al, v.* Issachar N. Robinson. Case from Oceana. Filed January 18, 1883.

Campbell, Justice.

Plaintiffs sued defendant, who had sold them several school orders, on the ground that a portion of them had been issued without authority. The declaration sets up an undertaking by defendant that they were good, true and valid orders signed by the school officers.

On the trial it appeared that plaintiffs bought the orders at a discount and that they were signed by the parties who purported to sign them. It also appeared that they were purchased without endorsement, being payable to bearer, and that defendant made no representations and was asked no questions on the character or consideration. He is not sued for fraud and the difficulty seems to have been that the school officers exceeded their authority. The papers are not forged, and so far as the record shows there was no bad faith. At any rate the case is not put on any such footing.

The court below took the case from the jury and ordered judgment for plaintiffs for the amount claimed.

We do not think any case was made out under the declaration. A sale of genuine documents may involve a warranty of title, but we do not think it involves any warranty that the officers had lawful authority to act in the given case. These papers were valid on their face, as is admitted, and we think in the absence of any representation or fraud plaintiffs took them for what they were worth. *Otis v. Cullum,* 92 U. S., 447.

The judgment should be reversed with costs and new trial granted.

(The other Justices concurred.)

III.

Mandamus to Compel Payments.

John A. Bryant, Assessor of School District No. 1, township of Leland, *v.* Verdine K. Moore, Township Treasurer. Mandamus granted February 27, 1883.

Graves, Chief Justice:

The relator alleges in his petition that the respondent holds $882.50 "or thereabouts" belonging to relator's district, and that $722.55 of it was raised

by tax levied on the property of the tax-payers of the district, and $159.96 or *about that amount* was received as primary school money. That an order or warrant drawn on respondent by the director for the payment to relator of all money in respondent's hands raised for district purposes and belonging to said district, and countersigned by the moderator, was presented by relator to the respondent and that the respondent refused payment.

In answer to the matters of the petition the respondent admits that he holds money of the district, and specifies $128 as being the sum of primary school money so held "as near as can be determined." He admits having on hand the further sum of $604 collected from the tax-payers. But he says the Leland Iron Company assert that about $475 of this money was wrongfully and illegally collected by respondent from such company, and that it has commenced a suit in Wayne county against him for its restitution, and that the suit is still pending. He denies that the amount in his hands exceeds these sums, and avers that the order or warrant which was presented to him was not legal or sufficient, but he neither points out any defect nor intimates the nature of the objection.

The case is brought to hearing on these papers and it becomes necessary to dispose of it.

According to his own admissions the respondent holds at least $257 of the money of the district which he should have accounted for. So far as appears he withheld it without a particle of right or justice. He was not called on for any precise sum, and if he had any ground for keeping back other money it was no excuse for detaining this. He should have paid it or, at least, offered to pay it on the order.

In regard to the residue of relator's claim it is evident the case presented, by the papers, is too ambiguous in fact and principle to permit any definite opinion either as respects the amount, or as respects the more general question of the right of relator to this remedy. For the sum of $257 the respondent is manifestly liable in this proceeding, and if necessary the relator will have the aid of the writ to compel the payment on the order.

As to the other portion of the claim, be it more or less, the application must be dismissed, but without prejudice to any other proceedings which may be advised concerning it.

The relator will recover his costs of this motion.

(COOLEY and MARSTON, Justices, concurred).

IV

SCHOOL ORDERS OBTAINED ON FALSE STATEMENTS.

Thomas Kane *v.* Elbridge G. Stowe. Case from Kent. Filed April 18, 1883.

CAMPBELL, Justice:

Plaintiff sued defendant as survivor of himself and one Alvin J. Shearer, to recover the price of certain school furniture, which plaintiff claims they purchased of him. In the court below judgment was rendered for the defendant.

Many errors are assigned, several of which go to show the incorrectness of the Judge's findings, and the remainder to the judgment as not borne out by the findings. The former are not sustainable, as the facts cannot be reviewed

in this court. The latter are material only in so far as it may be claimed they would warrant a judgment for plaintiff.

It can make no difference to a plaintiff whether the judge is correct or not on separate questions of law, if he does not find such facts as entitle the plaintiff to relief. Until such a finding is made the defendant cannot be charged, and the plaintiff has no damage from the legal rulings.

In the present case the judge found expressly that the supposed order signed by defendant and Shearer, who were assessor and moderator of a school-district, was signed on a fraudulent and false statement that the director approved and would sign it, and on the condition that it should be of no force unless he did sign it. Had it been so signed it would have bound the district, and the judge found there was never any purpose to contract, except for the district. There is no finding of any subsequent action as creating contract relations, or of any action of Shearer and defendant had with knowledge of the true state of facts and estopping them personally. Inasmuch as we cannot change the finding of facts, there is no foundation for any relief to plaintiff, and we need not consider the details further.

The judgment must be affirmed with costs.

(The other Justices concurred.)

V.

Mandamus Compelling Payment of School Order, with Interest.

A. C. Martin *v.* W. B. Tripp, assessor. Mandamus granted June 20, 1883.

This is a motion for a mandamus to compel the respondent to pay an order issued to the plaintiff by the proper school officers of the district, in payment for services as a teacher, and which respondent, at a time when he had money in his hands applicable for the purpose, refused to pay. Various defenses were set up, among them, a violation of contract by the relator, irregularity in the making of the contract, and a vote of the district not to pay.

The Court being satisfied there was no valid defense, ordered that the writ should issue; and as the order was such a settled demand as interest would be recoverable upon at law, interest was allowed from the time of demand.

VI.

School-House Sites.

School District No. 5, fractional, township of Delhi *v.* Everett. Case from Ingham. Filed December 21, 1883.

Cooley, Justice:

The statute which defines the powers of school district boards provides, among other things, that "they shall purchase or lease a site for a school-house, as shall have been designated by the district, in the corporate name thereof, and shall build, hire, or purchase such school-house out of the fund provided for that purpose, and make sale of any site or other property of the district when lawfully directed by the qualified voters at an annual or special meeting; provided, that the district shall not, in any case, build a stone or

brick school-house upon any site without having first obtained a title in fee to the same, or a lease for ninety-nine years, and also that they shall not, in any case, build a frame school-house on any site for which they have not a title in fee or a lease for fifty years, without securing the privilege of removing the said school-house when lawfully directed so to do by the qualified voters of the district at an annual or special meeting." Comp. Laws, §3629.

In September, 1867, the complainant in this suit was owner of a school-house and lot, and was in the occupation of the same, but the ground was low and needed drainage, and the question of procuring a new site for either temporary or permanent occupation was agitated among the voters. The place talked of for the purpose was on the land of the defendant, and some understanding with him concerning it appears to have been arrived at, but the parties do not agree what the understanding was. At the annual meeting held September 2, 1867, the meeting "voted to raise tax money sufficient to repair school-house and pay for a new site for the same, the amount to be ascertained and the job let by the following persons, who were appointed a committee for that purpose by the moderator: D. S. Price, C. Haag, and Philip Beal." In January, 1868, the following instrument was executed by defendant and the members of the district board:

"Know all men by these presents, that William E. Everett, of the township of Delhi, in the county of Ingham, and State of Michigan, of the first part, for the consideration herein mentioned, does hereby *lease* unto School District No. 5, in the township, county, and State aforesaid, party of the second part, and their assigns, the following parcel of land, to-wit: Commencing at a certain stake in the center of the Lansing and Eaton Rapids State road, running at a right angle of said road eight rods; thence parallel with said road ten rods; thence at a right angle with said road eight rods; thence on the line with said road ten rods to the place of beginning,—being on that portion of w ½ of s w ¼ of section 5 lying east of the Lansing and Eaton Rapids State road, in town 3 N., of range 2 w., with all the privileges and appurtenances thereunto belonging, to have and hold the same for and during the time it is used for school purposes. And the party of the second part, for themselves and their assigns, do covenant and agree to pay the said party of the first part for the said premises the sum of forty ($40) dollars, and to keep the said premises fenced in a good and substantial manner.

"In testimony whereof, the parties have hereunto set their hands and seals this ninth day of January, A. D. 1868.

Revenue Stamp, 50c. C. H. D., Register. *March 4, 1868.*	"WM. E. EVERETT, *Lessor,* [L. S.] "D. S. PRICE, [L. S.] "S. DRUMM, [L. S.] "PHILIP BEAL, [L. S.]

"*District Board of School District No. 5, of the aforesaid Township.*

"Signed and sealed in the presence of

"MILES GILLETT,
"W. DRUMM,
"C. HAAG."

The sum named in this instrument was paid, and the district took possession of the land described, and has ever since been occupying it for school purposes. The instrument itself was placed on record in the office of the register of deeds for the county. In the year 1881, the district having in

PROCEEDINGS

AT THE

THIRD ANNUAL MEETING

OF

COUNTY SCHOOL EXAMINERS.

HELD AT LANSING, DEC. 26, 1883.

It commences with even public sentiment and comprehends the parents' influence, the district officers' duties, the labor of the teachers, the duties of the examiners, and does not halt until it embraces the State Department of Education with its worthy chief.

It certainly must comprehend and embrace the duties of all *officers* engaged in its service in the procuring of funds to support the schools as well as those engaged in determining the proficiency of teachers. As a legal phrase it seems to be restricted to those officers only who supervise teachers. I say it seems; because when advised that this topic had been assigned me, I was at a loss as to what was included in the term, and turned to the statute to see what the Legislature meant by this term, and found that they had not used it at all, but I found in the compiler's work, in the index, the term school supervision, and was there referred to the Board of School Examiners, and the Chairman of Township Board of School Inspectors, and in this index only I found the term.

It seems to me that the proposition, put in a little more terse form, would be,—is the examination of teachers a part of school supervision? I answer without hesitation, it is.

The discussion of this question will embrace a few propositions almost, if not quite, axiomatic, and I wish to state them first.

Confining responsibility to a few, insures a personal interest and labor in any cause. Dividing it among many weakens the discipline and effectiveness of the moving power. All our industrial institutions recognize these principles, and so always have a head, a responsible, individual head to each department, as well as the general head of the entire institution. The workman may be as intelligent and as trusty, and possibly more so, than the foreman, yet the foreman is held responsible for the condition and effectiveness of his department. This principle applies as well to the school system as to any other business, with the exception of raising the money to defray the expense—where a number of persons are employed—because in doing this, a conventional routine must be followed to prevent oppression. The collecting of delinquent taxes is arbitrary, stripping the delinquent of his property, divesting him of his rights for the time being without any apparent return for the sacrifice. But no other department demands such form—such a great number of participants, and I might just here state, that no other business is so poorly, negligently, and ineffectually performed as this very tax business; and this fact seems to justify my proposition that the fewer persons held responsible, the more alive they are to their duties, and the more promptly, effectually, and satisfactorily the duty will be discharged. Again; every person in charge of workmen should have knowledge: 1st. How the work should be done; 2d. How it is done by his workmen; and 3d. Out of what material the structure is to be erected. If these points of information are not within his power, his stewardship must be faulty and unsatisfactory. It seems that this point needs no illustration, but if it does I would simply ask, what would you think of a builder who did not know whether his building was to be made of stone, or brick, or wood. He might have good workmen whom he was supervising,—now, what kind of supervising would he do?

One more proposition I wish to state, because I think it sound, to-wit:

No person or persons should be required to pass final judgment on any work with which they are not familiar and have no practical knowledge.

Now, with these primary thoughts in hand, let us look into the theory and

principle of the design, and the present tendency of our school system. The whole system is the action of the State in discharge of its supposed and admitted duty; that is, to give to each of its members the power to create for himself the best conditions of social life; for whatever is best for every member, is best for the society itself.

At first the thought was simply to bring knowledge within the reach of men, irrespective of their condition in life, but as the theory was developed, it broadened out into the grand American thought that knowledge would lessen crime; that educated men made the best citizens; and at last, that the State was under an *obligation* to place a good practical education within the reach of each of its members and, if not voluntarily accepted and the opportunity to secure it improved, to compel its acceptance and its benefits by powers that at first sight seem arbitrary. And this is the popular thought of to-day, notwithstanding it seems to encroach upon many personal rights of the citizen.

The State, to carry out the thought, creates a Department of Public Instruction; places its trusted, competent, and responsible officer at the head and in charge, with many powers, wide and salutary. It creates a *system*, which consists of three sub-departments, to wit: first, to raise the necessary funds; second, the local *supervision*, if I may so call it, generally known as the District Board, and third, the general supervision of teachers.

The duties of the first, as I have said, are performed by a multitude of officers, and I know of no business so ill performed, so unsatisfactory in its management, its powers so easily and successfully defied as our system of collecting taxes. Seldom a tax deed is sustained—while the great majority are declared invalid, because of the neglect of some officer in the discharge of his duties.

The second, or District Board is composed of as few officers as may be—each having his distinct and different duty.

We now come to the supervision of teachers. The examining power is required to certify that three requisites are possessed by each teacher—to wit: Good moral character; proper adaptability and preparation; and proper proficiency in the studies to be taught.

If the officer is conscientious, he cannot certify the possession of these requirements unless he is first satisfied that it is the truth.

The third may be made satisfactory to him upon public examination, but I know of no system by which he can satisfy himself, on the two other points at a public examination merely. He may take it for granted that if the candidate was not of a good moral character and was not adapted to the calling, he would have heard of it by general reputation, but this is a very poor justification for his certificate.

I would like to ask, how many business men in Lansing would give a recommendation to a clerk on the same information? Would tell one of their own number that a man—a stranger to him, though living in the city, was a reliable, proficient clerk, when all he could say to justify such a statement would be—he lives in the city, I never saw him before, but I never heard anything against him? I assure you, such men are few, but we are doing this same thing time and time again without any apparent hesitation or reluctance.

I know of only one way by which the examiner can be informed on these subjects, and that is by becoming familiar with his teachers, and familiar with the districts, and I wish to state right here, my conviction that these two qualifications of the teacher are of more importance than that of book preparation. It seems to me, then, that it is an imperative duty of the examiner to visit the teachers and districts within his jurisdiction, for this, with meet-

ing teachers at Institutes and Associations, is the best method known to me, by which this familiarity may be secured.

Another reason which might be given for the examiner having this duty, is that he should possess in a degree the confidence and respect of his teachers than he can possibly command by public examinations alone. The teacher should be led to the thought that the examiner is his best, truest friend; that he is interested in the teacher's work; that a word of encouragement and praise from him is something merited, as well as beneficial and pleasurable.

If I may be allowed to assign another reason why the examiner should visit the schools, it will be, that in our theory of the school system, the examiner is responsible for the work of his teachers, not in dollars and cents, but in that greater obligation—that of honor and confidence, and it is unjust to so hold him, and not give him the necessary means to inform himself fully on these points.

As to teachers, many failures could be averted and turned into successes, and their true positions determined by the examiner's possessing these facilities of information, and our school system made more effective and beneficial. To illustrate, let me ask of you: What would you think of a manufacturing establishment which denied its foremen the means of satisfying themselves whether or not their workmen were ingenious and skillful in performing their work, but compelled them to employ their men without this knowledge, and yet held them responsible for the quality and quantity of the work done? What would you think of such an institution which denied its foremen the means of knowing what kind of material the structure erecting was to be composed of, and yet held them responsible for the erection of a satisfactory building; yet this is the very thing done by every school system that denies this means of information to its examiners. Teachers are builders, but every one in his peculiar line. In this, they are a success; out of this a failure.

It would be as consistent to judge a carpenter by his attempted work in masonry, or a mason by his work as a painter, as to judge the teacher by the success he meets in any one school in which he fails. Schools differ, and the teacher who fails in one school may be a crowning success in another. In fact, with the best advantages, it is hard to determine just what the success of the teacher is. Many times he is building better than we know, but in these times the demand is made that we judge as soon, at least, as we can come to an intelligent conclusion; and this fact demonstrates that the examiner should have every available means that can be placed within his power, to determine the proficiency of his teachers, and the nature of the material to be worked up.

A good teacher is a grand possession, but the day has passed when the idea prevails that to secure a noted teacher is all that is necessary to procure a good school. To-day we know that to insure a permanent, successful, and profitable school, we must interest all in the school, including public sentiment and the personal interest of every member of the community, and this may in a great measure be secured by the efforts of the examining officer.

If he is an enthusiastic officer and brought into intimate relation with the citizens of the district, he would induce an interest in the business which would be of great importance and benefit to the system.

Another matter I wish to refer to, and in doing so I am aware that I am treading on slippery ground.

Many of our schools, as well as the usefulness of many teachers, are injured by the public prosecution of teachers for assault and battery while punishing for infraction of school discipline. I think it would be competent and wise to

give the supervising officer, the examiner, if you please, some duties to perform in such cases. Let the case be first presented to him, and if he finds the teacher guilty of malfeasance, let it be his duty to order the prosecution.

One angry, malicious person can do more injury to the school, even when he does no real injury to the teacher, than can be repaired by the whole corps of teachers and all the school officers combined in a whole term. The teacher has a position assigned him by our school system, let him have his rights defined, and let him be protected against the attack, under color of law, of passionate men.

I think I have demonstrated to your satisfaction that the supervision of schools, as it is termed, that is, the visiting of schools and the examination of teachers, should be conducted by the same officer. Let us now apply the foregoing principles to our present school system and note its defects, if any are to be found.

Under our present system an officer styled the Chairman of the Township Board of School Inspectors is the visiting officer. He is elected to office on a party ticket, and I am led to think that many times he is elected more for the purpose of obtaining his political influence, or to repay some light political service, than because of his fitness for the service or his ability to discharge the duties of the office. He is often inexperienced and ignorant of the fundamental principles of the great profession he is called upon to supervise. I wish to say just here that in my own county we have many proficient, active, influential chairmen—men who add luster to the school system, interest the people, are recognized by teachers and pupils as friends, and in every way reliable. These, however, I fancy, are exceptions, and of them I do not now speak.

He is under no obligations to any one. He is hardly responsible for his own official conduct, say nothing of his being responsible for the teachers' work. His pay is so limited that he don't feel justified in taking an educational journal nor buying a book. He has no authority, so to speak. No teacher is under obligation to listen to his suggestions. His duty is to visit the schools in his township and report his opinion to the Examining Board, and many times this report is so tardy that it is of no benefit to the State Department, to which the Secretary reports a great amount of matter contained in this report. In this county not more than one-half of the chairmen have forwarded the October report to the secretary at the present time.

The teacher learns to regard him more as a spy in camp than a friend at home. He is welcomed by neither teacher or pupils. He regards himself as of no importance in the system. If he reports unfavorably the Board wonders if it is not caused by some petty spite. If favorably, if he is not reporting some favorite. The Board does not feel safe to act promptly on his reports, and consequently appear slow and exceedingly conservative. The performance of his duties is unpleasant to the teacher, pupils, Examining Board, and himself, and I would add, he is generally a stranger to the Board and teachers. I would suggest that this visiting duty be assigned to the examiners having Theory and Art.

In our present system, the Township Board of School Inspectors are required each year to examine the official list of qualified teachers, and if they find any District employing an unqualified teacher to report the same and that District loses its share of public funds. This is not the wording of the statute but is the gist of its effect.

I venture to say that no Board of Inspectors in Ingham county has made such a report, although I have known of several cases of Districts deliberately employing unqualified teachers. I would suggest that this duty be assigned to the Examining Board. To effect this I would suggest that the Director of each District be required to report to that Board annually, name of each teacher employed, length of his term and wages paid him, notice of formation of new Districts and names of officers elected, the whole number of pupils, or school census as it is called, of the District; the number attending school during the year, average attendance, number of non-resident pupils, studies pursued, books used, furniture and apparatus in school house, worth and condition of house and out buildings, number of volumes in school library, and the progress of the pupils, and success of the teacher as regarded by the District Board; also, that teachers be required to keep a record of their school work, and report copies to the Examining Board at certain stated times, or whenever required. Incidentally I would remark shat this record would be of great convenience to the succeeding teacher, and of greater benefit to the school.

That teachers be required to report to the Board on commencing school, their present post office address, and the district with which engaged and length of term engaged for.

These reports, as supplementary to the Examiners' visits, would, upon examination and comparison, be of great help to the examiners in coming to just and practical conclusions regarding the work done by the teacher—and his usefulness to the school system.

Let it be the duty of the Examining Board to consult and advise with every District Board, regarding any educational interest. Make it also the duty of the Examining Board to require of the candidate, before granting a certificate, that he shall show to its satisfaction a certain minimum attendance at Teachers' Institutes, and be familiar with the leading methods of instruction.

Then make it the duty of each member of the District Board to visit the school at least once each term. This would insure four official visits each term and in my opinion be of great benefit to our schools.

In case of trouble in school, where the teacher was charged with culpability, I would have the district officers report it to the Examiners, and their duty to investigate, and if they found the teacher guilty of malfeasance, annul his certificate, after which a criminal prosecution might be instituted. If guilty of misfeasance or non-feasance, then to continue him in school, and no criminal action be allowed to obtain until the close of the term.

I think in this manner many useless and injurious actions would be avoided much to the prosperity of the school and the moral standing of individuals in the community.

For the purpose of giving the examiners more complete means of obtaining more close associations with the teacher, learning his individual peculiarities, and methods of thought, as well as to give them a better conception of methods and modern practice in the school room, I would suggest that the law be changed so as to connect each examiner with Teachers' Institutes and Associations. As to what that relation should be, and how it may be secured, I leave to a more able pen to whom the subject has been assigned, and who will be able to discuss it in a more practical and popular manner than could possibly be done by myself. It is a question pregnant with beneficial result. I shall listen to the paper with deep interest.

I have thus briefly outlined my thought upon the subject in question

given you earnest reasons for it, and reasons that seem to me pertinent and to the point.

The few changes I have suggested to our school system, I believe could be made without creating any friction in the execution of the law, and if carried out with ordinary ability would be of immense benefit to schools, teachers, examiners, and in fact to the community in general.

I pray your pardon for any divergence from the question which you may have observed in my paper. I can only say in justification that the school system is so intricate that I can hardly speak of one point in it without referring to, and to some extent discussing, other points.

It is a subject of vast importance, not only to us, but to teachers, and the whole social community, because it affects the lives and characters of those to whom the State will soon look for support and counsel.

I hope the discussion which is to follow this paper will be full and unreserved. If I have proposed unwise things, it is a duty you owe to your office and people to expose their fallacies. If wise and prudent, we should urge our people to adopt them. Let us make the school system a system conducted according to business principles—practical, effective, and of the greatest possible benefit to the commonwealth.

Theory is a grand thing, but is of little avail unless it can be put into practical work and produce beneficial results.

DISCUSSION.

E. P. Church, who opened the discussion of the foregoing paper, expressed himself as approving the paper in general. He agreed with the writer that a general supervision of, and frequent visits to the schools, should be included in the duties of the examiners. The only way to arrive at a correct estimate of a teacher's fitness is by becoming familiar with her work in the school-room. The result of the examination affords a fair indication of the applicant's scholarship, but good scholars are not necessarily good teachers. Some grasp truth so readily that they have no patience with those more obtuse. These young people come before the Examining Board and are granted certificates on recommendation of the District Board. But this information is generally unsatisfactory and unreliable. Personal investigation offers the only proper means of estimating the fitness of a teacher. Under the present system the examiners have no legal right to dictate changes, even when satisfied that the interests of the schools demand them. Above educational qualifications are a clean, pure character and executive force. Examinations, as now conducted, give no information in regard to the two latter qualifications. The officers whose duty it is to visit schools under the present law, are frequently persons who do not know a good school when they see it, and where the officer is competent, the prevailing laxity in the matter of visiting schools, renders the present system of supervision of little value. In addition to matter of school supervision the supervising member of the Board of Examiners could consult with parents under certain circumstances, and provided he was a competent, judicious man could accomplish much in the way of harmonizing the too often conflicting views of teachers and parents. Frequently a teacher may prove unsuccessful in one district owing to strictly local causes and yet possess qualities that would imply fitness for some other, and the examiner, by acquainting himself with the needs of the various districts and familiarizing himself with the characteristics of the different teachers, could sometimes

accomplish much by adjusting teachers to districts. He could occasionally collect the people of one or more districts together, and give them information that they could not otherwise obtain. He could aid and encourage teachers, helping those who gave promise of succeeding in the profession, and if earnest and faithful in the performance of duty, could materially advance the cause of education in many ways. Of course, this model examiner is hard to find, and when obtained should be suitably paid for his services. The examinations should be conducted by a board as at present, and the duty of supervising should be done by the Secretary. The latter officer could be chosen by the Township Board, when they elect the Board of Examiners.

J. R. Miller, of Constantine, objected to the plan of having the Secretary elected by the Township Board, and thought the present system of choosing that officer should be continued. In the matter of determining the personal fitness of teachers, the present method of examination is very faulty. If Township Superintendents would do their duty there would be no necessity for the change advocated. The Secretary should act as visiting member of the Board, and should be paid a suitable salary.

D. C. Pierce, of Brooklyn, thought the Secretary and visitor should be elected by Township Board.

M. R. Hartwell, of Bay county, did not understand how an examiner could determine the moral character of a teacher by visiting the school once each term.

Mr. Calkins stated that his paper advocated the idea that the examiner should become familiar with the district. If he performs his duty faithfully he will soon learn the character of the work done by the teacher. No one is so poor in character but can get some recommendation, and the only way to judge of a teacher's qualification in this respect is to become familiar with the work done. In his opinion, the examiner who has the branch of Theory and Art of Teaching, should have the duty of supervising instead of the Secretary.

J. R. Miller, while agreeing with the sentiment of the paper, objected to the plan under discussion chiefly on the ground of the inability of one examiner to visit each school twice a year in the larger counties. Would it be feasible to have more than one examiner act as visitor in the more populous counties? The sentiment of the meeting seemed to be unanimously in favor of uniting the duties of examining and supervising. The question is, how can this be accomplished? Can we not bring some pressure to bear on the next Legislature to bring this needed reform about? The new law, in general, has proved successful as far as it goes, and the time has come to endeavor to secure the adoption of any needed amendments.

At this point further discussion was deferred, and a paper was read by W. W. Beman, of Ann Arbor, on

Uniformity of Questions in County Examinations.

The limited amount of time at my disposal after receiving the request of the Superintendent of Public Instruction to prepare a paper on this subject, has prevented me from obtaining all the information I could desire as to the methods of conducting examinations in other states Accordingly, I have been able but partially to profit by the experience of others who have wrestled with this problem and obtained a more or less satisfactory solution.

I have not striven to obtain a solution ideally perfect, but the most prac-

ticable one subject to the conditions imposed upon us by the present School Laws.

The most casual glance at the problem under consideration will convince us that uniformity of questions without uniformity in the times of holding the examinations will expose our teachers to temptations which they may not have strength to resist. Our means of communication from one county to another are too cheap and too easy to prevent papers given at one examination from being sent to applicants at another. The uniform questions, by whomsoever prepared, must be used on the same dates in every county throughout the State. How shall we secure this uniformity of date?

By reference to the Report of the Superintendent of Public Instruction for 1882, it will be seen that the number of examinations held in various counties ranged anywhere from one in Baraga county to twelve in Wayne; that the average number of examinations was between five and six; that in twenty-two counties more than seven examinations were held; in eleven counties more than eight, and in five counties more than nine. Accordingly, I have prepared a schedule of eight uniform examinations, assuming that these eight dates will be used in twenty-two counties, and that in the fifty-seven or fifty-eight other counties such selections from these will be made as shall best suit the needs of the examiners. To secure absolute uniformity would involve considerable additional labor in the preparation of twelve sets of questions instead of eight, and hence it has been left open for the Boards of Examiners in eleven counties to prepare a few sets of questions for themselves.

By law, the two regular examinations must be held on the last Fridays of March and October respectively. Let the other three spring examinations be held on the second Friday of March, and the second and last Fridays of April; the other three fall examinations on the last Friday in August, and the second and last Fridays of September, in each year. (Of course, these particular dates are not essential to the scheme, since they are assumed only as a basis for action. If the examiners have in mind a schedule of dates which will better suit the majority of those most interested, the change can readily be made.)

Should the plan here outlined meet with your approval, the Superintendent of Public Instruction could issue circulars to the Boards of Examiners, setting forth the advantages to be gained by its adoption and asking the secretaries at once to inform him of their selection of dates. With this plan in working order and the prevalence of "central standard time" throughout the State, we could labor more earnestly, perhaps, under the pleasing delusion that our brethren were suffering simultaneously the "trials and tribulations" of examination-holding.

Uniformity of times having thus been obtained, how shall we secure uniformity of questions for these examinations? Have the questions prepared either by the State Board of Education, or by duly appointed committees of an organized State Association of Examiners, the Superintendent of Public Instruction being the chairman (*ex-officio*); have them printed by the State and sent out from the office of Public Instruction, as is the custom now for the so-called "regular" examinations in March and October.

The first method seems most in harmony with the spirit of our school law which is quite explicit both with regard to the preparation of the questions by the State Board of Education, and the proper compensation of its members for their labor.

In the general school laws, chap. XVII., sec's 2 and 3, we read: "Said Board (*i. e.* the State Board of Education) shall prepare questions suitable for the examination of teachers for the various grades of certificates required by law to be given to teachers of the State, and the Superintendent of Public Instruction shall furnish the questions to officers authorized by law to examine teachers. The members of said board shall be entitled to receive for their services while actually engaged in the duties of their office, as provided in sections one and two of this act, three dollars per day and necessary traveling expenses while so engaged."

So far as I have been able to learn, this system has attained its most perfect development in the neighboring State of Indiana.

Its State Board of Education seems exceptionally well constituted. The members are the Governor of the State, the State Superintendent of Public Instruction, the President of the State University, the President of Purdue University, the President of the State Normal School, and the Superintendents of Common Schools in the three largest cities in the State, viz: Indianapolis, Evansville, and Fort Wayne. By virtue of the power conferred by the authorization to take cognizance of matters not otherwise provided for, the Board prepares questions for the examination of teachers and prescribes the time and manner of their use by the County Superintendents. Generally the question lists are prepared for three or four months at a time—that is, for three or four examinations—since one examination is held each month. The question lists are printed by the State printer on tissue paper, and are carefully kept at the department until a short time before the examination for each month—until Thursday or Friday, usually—the examinations being held on Saturday.

The lists are sent to the various County Superintendents in common envelopes, each of which is sealed with red wax and has the stamp of the State Board's seal. The number sent to each Superintendent varies from ten to one hundred, according to request or "order." In sending his order for lists each Superintendent signs and sends a promise to observe the regulations of the Board with reference to the care and use of the lists.

The seals are broken and the envelopes are opened at the commencement of the examination and in the presence of the applicants for certificates.

The valuation of the answers and the grading of the certificates are left to the discretion of the County Superintendents.

The chief clerk of the Department at Indianapolis in describing their system, says: "It has stood the test of long-continued use and seems to be the best that has been devised."

In the province of Ontario, not only are the times of holding the examinations and the questions used uniform, but also the valuation of the answers prepared by applicants and the grading of certificates. The applicants are for the time impersonal creatures, being known not by name but by a number previously assigned at Toronto.

The examiners act simply as presiding officers, and at the end of the examination send the answers prepared and sealed by the applicants to the Education Department at Toronto for valuation previous to the issuing of certificates. Our school law, however, does not contemplate such absolute uniformity.

Iowa is the only State within my knowledge where questions are prepared by committees of the County Superintendents, but even these committees are appointed by the Superintendent of Instruction and the preparation of the questions is subject to his direction.

Though a strict interpretation of the topic assigned does not call for such discussion, it may not be amiss to present a few considerations in favor of this uniformity of questions.

1. The preparation of questions suitable for our examinations is not an easy task; it requires far more knowledge and wisdom than a casual observer would think necessary. It presupposes an extended acquaintance with the working of our common schools—an acquaintance to be gained only by actual experience in the school-room; a knowledge of the deficiencies most prominent in the training of our teachers, and the ability so to frame the questions as gradually to remove these deficiencies and elevate the standard of professional attainment. What organized body is more likely to have this high professional skill than the State Board of Education?

2. The standards of requirement are as many and various as the counties of the State, while even in the same county the standard may vacillate from one month to another. All this works most manifest and palpable injustice to the teacher. In our county we have felt compelled each year to reject several applicants who held certificates from adjacent counties. Whether this be due to a more severe class of questions, or a more rigid system of marking, or a temporary lack of knowledge on the part of the applicant, is yet undetermined. The fact remains. A teacher ought to have a reasonable assurance that gaining a certificate in one county is good ground to expect like success in another. Justice to our teachers demands this uniformity.

3. We need not advert at length to minor considerations, such as the saving of trouble and expense, the avoidance of the charge that the Board of Examiners in one county is more severe in its questions than in another, the doing away with possible favoritism toward particular schools, etc.

Last, but not least, perhaps, a justifiable feeling of State pride should impel us to put ourselves in the van of educational progress. Many of our states have already adopted methods leading to a greater or less uniformity. This very week the problem is under discussion by the examiners in Ohio. Indiana is ten years ahead of us in the race. Shall we stand idly by and see her carry off the prize?

DISCUSSION.

O. D. Thompson, Romeo, assumed that there was no question as to the desirability of a uniformity of questions. Under the present system certain subjects are assigned to certain members of the Board, and it necessarily follows that the character of the questions varies greatly in the different counties. A uniformity in the preparation of questions would secure a uniform grade of scholarship throughout the State. The State Board of Education should prepare the questions, or a committee could be appointed to do this work. Other states have advanced beyond us in this matter of uniformity, and he hoped that the meeting would come to some decision and take definite action.

S. G. Burkhead, Grand Traverse, thought there was injustice in the frequency of the examinations. Often a teacher who has passed examination in one county is called to teach in an adjoining one, and has to go through the ordeal of another examination. He believed that certificates granted in one county should be accepted by the Boards of other counties.

Supt. H. R. Gass saw difficulties in the way of such a plan. A teacher who failed to pass examination in one county might secure a certificate from some other Board, and ask that it be recognized by the Board who had already refused to grant a certificate.

Clark Stanton, Holly, thought the law prohibited such endorsements of certificates. Uniformity in the valuation of answers he regarded as of more importance than uniformity of questions. One examiner takes into account only the technical correctness of the answers, while another will consider the general knowledge of the subject shown by the applicant.

Supt. Gass.—A uniform system of marking is not desirable, as the qualifications vary in different counties. The plan was tried years ago, but failed. The law does not provide that one Board can honor a certificate issued by another.

H. R. Pattengill.—The question comes up, *is* uniformity desirable? Hereafter if questions prepared by the State Board of Education are used, they should be used exclusively or not at all. Uniformity of questions necessitates a uniformity of times for holding examinations to prevent fraud. It does not seem that one set of questions would apply to all localities.

C. B. Hall, Hastings.—Correctness in answering questions is not the chief consideration in estimating the qualifications of a teacher. Some do not succeed in passing a very creditable examination and still prove very competent teachers. If a teacher has given evidence of succeeding in the profession, even if she fails to answer the questions satisfactorily, a certificate should be granted. Good management and success as teachers are more important than educational qualifications. The best means of elevating the standard of teachers is to secure a Board of Examiners familiar with school work.

Mr. Calkins thought the standard of examinations should be continually raised, from year to year. If one grade of questions is used the examiners must adopt an elastic rule in grading the answers, as no two teachers will look upon the same question in exactly the same light.

Mr. Burkhead wished to know how much a teacher is elevated by this yearly grinding out in arithmetic and the common branches. In the northern counties it is the custom to give certificates at 60 %. Frequently teachers without any experience, direct from school, will pass more creditable examinations than experienced teachers. He regarded these constant re-examinations as demoralizing.

Mr. Chase, Leslie.—General knowledge and not specific upon the subjects required by law is all that should be exacted. If teachers have been over a subject once they should have a general knowledge of that subject. Questions should be prepared upon that basis.

After some further discussion the following resolution was offered:

Resolved, That it is the sense of this meeting that we have a uniform set of questions throughout the State, to be sent from the State Department.

J. H. Sharpe recommended a uniform system of marking.

Mr. Clapp offered an amendment that the time of holding examinations be uniform.

Mr. Thompson thought the State Department should fix the time for holding examinations as well as furnish the questions.

Mr. Pattengill moved that the papers written and the answers be returned to those who furnished the questions, for grading and marking.

Supt. Gass thought this would be contrary to the expressed desirability of the examiner being familiar with the character of the teacher's work.

Mr. Pattingill's motion was tabled.

The subject of the Relation of County Examiners to Teachers' Associations—County and Township—was introduced by Mr. Pattingill. He would simply say that it was the official duty of every school officer to advance the interests

of education in his county by every means in his power. If he claims he is not sufficiently paid to warrant this effort, he should retire. The duty of examiners does not end with the examination of teachers, but they should become acquainted with them, and the County Association is the proper place to do this. It cannot be done at the State Association. It is the duty of examiners in counties where no Associations exist to organize them. All the members of the Board should labor to make them successful, coming as they do from different parts of the county they can do much to enlist the interest of the teachers and others in their immediate locality. If they have not time for this work they should step down and out.

Mr. Burkhead stated that he never saw a member of the Board of Examiners of Grand Traverse county at a meeting of the county association or in the school-room. What is needed is more teachers on the Boards. Lawyers, farmers, physicians, and professional and business men are too much occupied with their private affairs to give the necessary amount of time to their official duties.

Superintendent Gass believed there were many active, earnest men on the various Boards who were not teachers. In some counties they have township organizations as well as county, and this subject was suggested to devise some means to interest examiners in this work. Would it not be a good plan to have them organize and take charge of these township organizations?

Mr. Sharpe stated that an association was organized in Bay county two years ago with seven teachers in attendance. The next meeting, held two months later, showed an attendance of thirty, and there has been a constant growth in attendance and interest since then.

Mr. Calkins.—No community ought to ask a man whose time is worth money to work for nothing. It would be a matter of economy for the State to pay for the best of talent in this matter. We need a continual growth. I would recommend that our laws be amended instructing Boards of Examiners to consult with the superintendent to arrange for institutes and secure the attendance of examiners and teachers.

Eugene Miller presented the following resolution:

Resolved, That a committee of three be appointed by the chairman to draft a bill to present to the next Legislature looking to the union of the office of examiner and school visitor.

There being considerable difference of opinion as to the advisability of the committee drafting a bill, the following substitute to Mr. Miller's resolution was adopted after considerable discussion:

Resolved, That a committee of three be appointed by the chair to draft a bill looking to the union of the offices of examiner and visitor, to be presented to this association at a meeting one year hence.

The chairman appointed as such committee: Eugene Miller, of Grass Lake; Supt. H. R. Gass, and Jay Calkins, of Leslie.

A roll call by counties showed the following examiners in attendance:

Arenac county—T. S. Joslin.
Barry county—C. B. Hall.
Bay county—John H. Sharpe, M. R. Hartwell.
Clinton County—Will H. Brunson.
Crawford county—W. A. Masters.
Eaton county—J. L. Wagner.
Gladwin county—C. C. Foutch.
Grand Traverse county—S. G. Burkhead.

Gratiot county—H. R. Pattengill.
Ingham county—Jay Calkins, A. R. Hardy, J. L. Huston.
Ionia county—C. L. Bemis.
Jackson county—Eugene Miller, D. C. Pierce.
Kalamazoo county—Ashley Clapp.
Keewenaw county—C. A. Hanscom.
Macomb county—O. D. Thompson.
Montcalm county—E. P. Church.
Muskegon county—N. L. Downie.
Oakland county—Clark Stanton.
Osceola county—A. B. Perrin.
Ottawa county—Mrs. A. V. Weatherwax, A. W. Taylor.
Shiawassee county—G. R. Brandt.
St. Joseph county—J. R. Miller, J. G. Plowman.
Van Buren county—A. E. Jennings.
Washtenaw county—W. W. Beman.
Upon completion of the roll call the meeting adjourned to 7 o'clock P. M.

Evening Session.

Upon reassembling the following resolutions were offered by W. W. Beman:

Resolved, 1. That a committee of three be appointed by the chairman to act with the State Superintendent of Public Instruction as chairman in preparing a schedule of ten uniform dates for our county examinations.

2. That circulars be issued by the Department of Public Instruction asking the Boards of Examiners to make their examinations conform to these dates as far as practicable.

3. That the State Board of Education be requested to prepare questions suitable for these examinations, and issue them to all Boards of Examiners as express their desire to use them.

The resolutions were adopted, and the following were appointed by the chairman to constitute the committee called for in the first resolution: W. W. Beman, of Ann Arbor; J. R. Miller, Constantine; and W. H. Brunson, St. Johns.

O. D. Thompson, from the committee on permanent organization, submitted the following report:

Your committee would respectfully report, recommending that a State Association of County Examiners be organized, with proper Constitution and By-Laws.

That we recommend that the following named gentlemen be elected as temporary officers during the coming year, and until the adoption of a Constitution and the election of permanent officers, to wit:

President—J. G. Plowman, White Pigeon.
Vice-President—E. P. Church, Greenville.
Secretary—Clark Stanton, Holly.

That a committee to prepare Constitution and By-Laws be appointed, as follows: Supt. H. R. Gass, Lansing; David Howell, Lansing; W. W. Beman, Ann Arbor; with instructions to report at the next annual meeting.

That when we adjourn it be until the time of meeting of the State Teachers' Association next year, the date to be designated by the State Superintendent of Public Instruction.

Your committee would further recommend that the sessions of this Association be at least one day each, and that the meetings be held at Lansing just preceding the State Teachers' Association.

On motion of Mr. Pattengill, the report was accepted and adopted.

The following resolution, offered by Prof. Beman, was adopted:

Resolved, That the examinations for first and second grade certificates be held at the two regular examinations in October and March, as established by law.

The question whether there should be a limited time for examination on each subject, and amount of time that should be devoted to each, was discussed at length, showing a great diversity in the methods of conducting examinations in the different counties. No definite expression of opinion was arrived at regarding the topic under discussion, and the Association adjourned to meet at the Senate Chamber, Thursday, Dec. 27, at 2 o'clock P. M.

Lansing, Thursday, December 27, 1883.

D. E. Haskins of Jackson, thought some action should be taken to lessen the number of unqualified teachers employed. The legal time school shall be taught by qualified teachers to secure public money, should be lengthened, or the employment of unqualified teachers entirely prohibited. He suggested that the committee appointed to consider the matter of uniting the offices of examiner and school visitor be also instructed to take some action that would remedy this evil.

Mr. Sharpe.—If an unqualified teacher is employed, have the Board of Examiners legal power to interfere?

Mr. Stanton.—The statute is very explicit in this regard. There is an officer whose duty it is to look after the employment of unqualified teachers. It is not the duty of the examiner to attend to this matter.

Mr. Haskins.—Very often the town board do not know that teachers have no certificates, and it should be the duty of the examiners to attend to it. Another just cause of complaint on the part of teachers, is the non-payment of fees by many of the teachers in city schools. Teachers who work for their certificates and pay for them, should be protected.

Mr. Calkins.—I think this whole system of collecting Institute fees from teachers is mean, and unworthy the State of Michigan. Place the power to act on the employment of unqualified teachers with the Board of Examiners, and after a district has lost its public money once or twice on this account the trouble would be obviated.

Mr. Beman.—The directors in Washtenaw county are alive to the necessity of holding school the minimum time. After the danger of losing the public money has been removed, they feel at liberty to employ unqualified teachers. Let us have an amendment to the law, withholding public aid from any district that employs unqualified teachers.

Mr. Brunson.—In Clinton county we have half of our examinations the last week in October. After this examination we have a list of all qualified teachers printed, and copies of this list sent to every inspector, with the request that when visiting schools he shall ascertain if the teacher has a certificate. If not, he should notify the Secretary of the Board of Examiners, and the matter be brought to the attention of the District Board.

Mr. Beman offered the following resolution:

Resolved, That a committee be appointed to investigate the feasibility of recommending an amendment to the school law withholding the payment of public money from any district employing unqualified teachers.

The motion was lost, it evidently being the sentiment of a majority that the present law, if properly enforced, is sufficient.

The subject of a uniformity of grading answers at examinations was then considered.

E. Marble, of Calhoun County, stated that they held to a standard of 75 per cent. for third grade certificates, 80 per cent. for second, and 90 for first. We have always held teachers to this standard strictly, and as a consequence have sometimes experienced difficulty in supplying all the schools, while other counties were well supplied with teachers. The other day a teacher came to me and asked me to endorse his certificate. Upon examination I found he had only passed 65 per cent. I would recommend that hereafter all teachers be required to pass an average of 75 per cent.

Mrs. Weatherwax, of Ottawa county, thought an average of 75 per cent. should be established. When necessary, a conditional certificate could be granted if the applicant is generally successful, requiring a special examination in the subject in which the teacher was deficient.

Mr. Stanton.—One man's 75 per cent. differs from another's. How can we remedy this difficulty and establish a general average? My way has been to find out whether it is probable that the applicant is capable of teaching the branches required of them. I mark 100 when I conclude a teacher is perfectly capable of teaching the required branches.

Pending the discussion of this question, the Association adjourned, *sine die*.

TRANSACTIONS

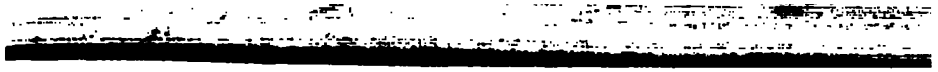
OF THE

MICHIGAN STATE TEACHERS' ASSOCIATION

AT THE

THIRTY-THIRD ANNUAL MEETING,

Held at Lansing, Dec. 26, 27, and 28, 1883.



STATE TEACHERS' ASSOCIATION.

Officers for 1883.	Officers for 1884.
President,	*President,*
JOSEPH ESTABROOK, . . Olivet.	Z. C. SPENCER, . . Battle Creek.
Vice-Presidents,	*Vice-Presidents.*
A. J. DANIELS, . . Grand Rapids.	I. N. MITCHELL, . . Grand Rapids.
O. C. SEELYE, ... Owosso.	F. A. BARBOUR, . . . Coldwater.
Secretary,	*Secretary,*
H. R. PATTENGILL, . . . Ithaca.	H. C. RANKIN, . . . Buchanan.
Treasurer,	*Treasurer,*
S. G. BURKHEAD, . . Traverse City.	CLARK STANTON, . . . Holly.
Executive Committee,	*Executive Committee,*
1880-3.	1881-4.
I. N. DEMMON, . . . Ann Arbor.	C. A. GOWER, ... Lansing.
E. A. STRONG, . . . Grand Rapids.	E. J. MACEWAN, . . . Lansing.
D. E. HASKINS, ... Concord.	MISS M. LOUISE JONES, . Charlotte.
1881-4.	1882-5.
C. A. GOWER, . . . Lansing.	C. F. R. BELLOWS, . . Ypsilanti.
E. J. MACEWAN, . . . Lansing.	E. A. STRONG, . . . Grand Rapids.
MISS M. LOUISE JONES, . Charlotte.	DR. H. B. BAKER, . . Lansing.
1882-5.	1883-6.
C. F. R. BELLOWS, . . Ypsilanti.	J. W. EWING, ... Ionia.
Z. C. SPENCER, . . . Battle Creek.	W. H. PAYNE, . . Ann Arbor.
DR. H. B. BAKER, . . Lansing.	A. E. HAYNES, . . . Hillsdale.

STATE TEACHERS' ASSOCIATION.

TRANSACTIONS OF THE THIRTY-SECOND ANNUAL MEETING.

Lansing, Wednesday, Dec. 26, 1883.

OPENING SESSION.

Representative Hall was well filled, when at 8:30 P. M. the President called the Association to order. The committee on music, consisting of Mrs. R. B. DeViney, Miss Mabel Paddack, H. A. Lee, and W. L. Smith, furnished two fine selections, which were followed by prayer by Rev. Mr. Thompson, of the Central M. E. Church, Lansing.

The President's address followed. Subject: "Effects of Alcohol on Human System."

After the address the Association enjoyed a very pleasant social.

Lansing, Thursday, December 27, 1883.

MORNING SESSION.

Meeting called to order by Pres. Estabrook, at 9:30. Devotional exercises were conducted by Supt. Church of Greenville. Next followed a paper on "Courses of Study for Smaller High Schools," by H. C. Rankin of Buchanan. Discussed by Messrs. Miller of Grass Lake, Phillips of Elkhart, Bemis of Portland, Graves of Howard City, and Ransom of Stanton.

"Methods of Study of the Classics" was the next paper, presented by Prof. Gould of Olivet. Discussion of the paper was opened by W. S. Perry, Ann Arbor. The hour for recess having come, further discussion was postponed and the President announced the following Committees:

On Nominations—Messrs. E. P. Church, E. L. Briggs, I. N. Mitchell, J. J. Bronson, and A. B. Perrin.

On Necrology—Messrs. E. A. Strong, E. B. Fairfield, and O. D. Thompson.
On Resolutions—Messrs. Austin George, J. S. Crombie, and Clark B. Hall.
After recess the Association listened to a paper by Leroy Halsey, Battle Creek, subject: "The Study of the English Language, as a means of Mental Culture."

AFTERNOON SESSION.

The first paper of the session was by Prof. A. E. Haynes of Hillsdale College, subject: "True Education." This was followed by a paper illustrated by charts, etc., by Prof. Leartus Connor, M. D., of Detroit, subject: "How can we best care for Eye, Ear, and Brain, in school life?"
The paper was followed by a short discussion of the subject by Prof. Putnam of the Normal School, and Supt. Ransom of Stanton.
The discussion of the morning's papers was then taken up, and Messrs. Chase and Rork spoke on the subject of the Classics.
The next paper was read by Mrs. Edna Chaffee Noble, of Detroit, after which Mrs. Noble read several selections.

EVENING SESSION.

The evening session was opened by a quartette, after which Hon. Edwin Willits, of the State Normal School, delivered an address, subject: "The Personality of the Teacher."
The address was followed by a solo from Mrs. Knight, of Detroit.
Mrs. Noble, on being called for, again recited several pleasing selections.

Lansing, Friday, December 28, 1883.

MORNING SESSION.

Opening exercises were conducted by Prof. Daniel Putnam.
The first paper of the morning was read by S. G. Burkhead, of Traverse City. Subject—"Defects in the Present System of Examinations." Discussed by Messrs. Stanton, Ashworth, Tompkins, Wickham, and Pattengill.
D. Howell, of Lansing, was next granted permission to present the urgent request from the President of the National Teachers' Association to the teachers of Michigan to attend the next meeting of the National Association at Madison, Wis., in July, 1884. A large collection of school material will be on exhibition there at that time.
A paper on "Effective Energy in Teaching" was next read by U. W. Lawton, of Jackson. Discussed by A. E. Strong, of Grand Rapids.
After recess President Estabrook introduced Governor Begole, who entertained the association with a five minute speech.
J. G. Plowman, of White Pigeon, next presented the report of the committee on "County Institute Work."
Prof. Daniel Putnam, of the State Normal School, next presented a paper on the "Grading of District Schools." Discussed by D. Howell, of Lansing.

AFTERNOON SESSION.

Upon reassembling in the afternoon, the discussion of Prof. Putnam's paper was taken up, and remarks made by Messrs. Baxter, Howell, and Cox.

W. J. Baxter offered the following resolution, and moved its adoption:

Resolved, That a committee consisting of the Superintendent of Public Instruction, Prof. Putnam, and Prof. Estabrook, be appointed by this Association to carefully consider the suject matter of the admirable paper of Prof. Putnam on "Grading of District Schools;" to wait upon the Governor, and request him to call the attention of the Legislature to the subject, and recommend favorable action; and to present to the Legislature and to urge such an amendment to our common school laws as will secure the desired result.

Motion prevailed.

W. J. Cox moved that the committee on Prof. Putnam's paper be authorized by this Association to present in the same manner the subject of "County Institutes," according to the plan outlined in the report of the committee, as read by Supt. Plowman.

Carried.

D. Howell offered the following resolution, and moved its adoption:

Resolved, That the Superintendent of Public Instruction be requested to make hereafter the usual arrangements with railroads and hotels for reduction of rates, and return the expense of the same to this Association.

Motion prevailed.

W. L. Swan was then given an opportunity to explain the workings of the Michigan School Bureau, or Teachers' Agency.

N. H. Walbridge of the Michigan School Moderator, offered the following resolution, which was adopted:

Resolved, That it is the sense of this Association that the Michigan School Bureau, established in this city, is a valuable aid to the teachers and schools of the State, and that we recognize and indorse it as such.

The Committee on Resolutions reported the following:

1. *Resolved*, That in the judgment of this Association, two papers for each half day's session are all that can be presented and considered, with profit. The Executive Committee for the next year are hereby instructed to arrange for that number only, and to limit the papers to thirty minutes each, and the remarks of each person taking part in the discussion to ten minutes.
2. *Resolved*, That the Executive Committee are hereby requested to lay out definite lines of work, and to hold the Association to the same, to the end that conclusions may be arrived at.
3. *Resolved*, That hereafter the committee on the nomination of officers be appointed by the house at the close of the first half day's session.

The Association voted to consider each resolution separately, which resulted in adopting the first two, and after much debate, tabling the third.

Prof. Putnam, of the Normal School, offered the following as substitute for the third resolution:

Resolved, That hereafter the President of this Association shall be elected by ballot without the intervention of a nominating committee.

Resolution adopted.

The committee on nominations then presented the following report, which was accepted, and the secretary instructed to cast the ballot of the Association accordingly:

For President—Z. C. Spencer, Battle Creek.

For First Vice-President—I. N. Mitchell, Grand Rapids.

For Second Vice-President—F. A. Barbour, Coldwater.

For Secretary—H. C. Rankin, Buchanan.

For Treasurer—Clark Stanton, Holly.

For Executive Committee, for three years—J. W. Ewing, Ionia; W. H. Payne, Ann Arbor; A. E. Haynes, Hillsdale.

To fill vacancy in Executive Committee, caused by election of Z. C. Spencer to the office of President—E. A. Strong, of Grand Rapids.

On motion of N. H. Walbridge, the thanks of the Association were tendered to the railroads and hotels for their liberal rates, to the musicians who have favored us with singing, and to the State officers for opening to us the commodious rooms of the capitol.

At the suggestion of State Superintendent Gass, the proceedings of the County Examiners' Meeting were ordered bound with the proceedings of the Association.

The secretary was also instructed to have printed two copies of the proceedings for each member, ten copies for the President, and five each for those who furnished papers.

The Report of the Treasurer was next read and accepted.

There being no further business to transact the Association adjourned, after a few remarks by the President.

J. ESTABROOK,
President.

H. R. PATTENGILL,
Secretary.

REPORT OF THE TREASURER.

DEBIT.

1882.			
Dec. 29.	To balance on hand	$132 37	
1883.			
Dec. 28.	To annual dues	122 00	
			$254 37

CREDIT.

1883.				
Dec. 28.	By cash to	W. S. George & Co	$28 70	
"	"	W. L. Smith	2 50	
"	"	E. J. MacEwan	3 50	
"	"	J. Estabrook	3 00	
"	"	H. R. Pattengill	5 40	
"	"	Z. C. Spencer	72	
"	"	H. R. Gass	13 25	
"	"	Wesley Emery	1 20	
"	"	on hand	196 10	
				$254 37

Respectfully submitted,

S. G. BURKHEAD, *Treasurer.*

LIST QF MEMBERS, 1883.

H. Abbot.
H. B. Baker, Lansing.
F. A. Barbour, Coldwater.
Irving W. Barnhart, Flint.
W. J. Baxter, Jonesville.
W. J. Beal, Lansing.
W. W. Beman, Ann Arbor,
C. L. Bemis, Portland.
E. L. Briggs, Eaton Rapids.
J. J. Boynton, Port Huron.
J. J. Bronson, Berrien Springs.
Susie L. Brooks, Fenton.
F. E. Britton, Ann Arbor.
S. G. Burkhead, Traverse City.
Mrs. Anna B. Butz, Marcellus.
Nancy Campbell, Grand Rapids.
W. J. Champion, Ypsilanti.
C. H. Chase, Leslie.
J. A. Chisholm, N. Muskegon.
E. P. Church, Greenville.
Ashley Clapp, Vicksburg.
N. P. Collins, Homer.
W. J. Cox, Calumet.
E. A. Condit, Morenci.
J. S. Crombie, Big Rapids.
C. H. Cole, Saline.
Ella E. Dean, Hancock.
H. F. Derr, Mason.
Julia A. Dibble, Kalamazoo.
Webster Dock, Ypsilanti.
L. E. Dow, Hillsdale.
N. L. Downie, N. Muskegon.
W. F. Edwards, Niles.
Florence L. Elms, Kalkaska.
Joseph Estabrook, Olivet.
E. B. Fairfield, Grand Haven.
H. M. Fish, Burr Oak.
C. W. French, St. Joseph.
Emma Fields, 178 First ave., Grand Rapids.
Abby Fields, 126 Sheldon st., Grand Rapids.
F. S. Gaige, Concord.
Austin George, Ypsilanti.
L. J. Gibson, Lyons.
J. B. Glasgow, Jackson.
George P. Glenn, Marshall.
C. A. Gower, Lansing.
E. L. Griffith, Bancroft.
M. O. Graves, Howard City.
C. B. Hall, Hastings.
Leroy Halsey, Battle Creek.
D. A. Hammond, Tecumseh.
D. E. Haskins, Concord.
Miss E. A. Hart, Wacousta.
H. W. Henry, 149 Wabash ave., Chicago, Ill.
E. H. Hinkley, Breedsville.
A. E. Haynes, Hillsdale.
Anna Howe,
Mrs. Lillie Howe, Berrien Springs.
D. Howell, Three Rivers.
Miss Hester Jenks, Sand Beach.
Charles Jenkins, Mason.
A. E. Jennings, Lawrence.
Samuel Johnson, Lansing.
M. Louise Jones, Charlotte.
Miss Anna Keene, Marlette.
F. M. Kendall, Jackson.
Mary E. Kessler, Vassar.
Mrs. Sophie H. Knight, 58 Park Place, Det.
Miss H. L. Lane, Webberville.
U. W. Lawton, Jackson.
Lewis H. Lee, Burlington.
J. L. Lucas, Niles.
Mrs. G. H. Manke.
Ephraim Marble, Marshall.
E. J. Mac Ewan, Lansing.
D. E. McClure, Shelby.
James McInnis, Flushing.
A. L. McLaughlin, Grand Rapids.
Miss Lois McMahon, Jonesville.
Miss Anna McMahon, Jonesville.
L. J. Meacham, Centreville.
Eugene Miller, Grass Lake.
I. N. Mitchell, Grand Rapids.
Mrs. I. N. Mitchell, Grand Rapids.
A. Jay Murray, Ypsilanti.
B. E. Nichols, Ann Arbor.
Miss. E. A. O'Brien, Jackson.
Peter Oliver, Wacousta.
F. R. Osborn, Pontiac.
H. R. Pattengill, Ithaca.
Miss Abbie Pearce, Grand Haven.
W. S. Perry, Ann Arbor.
T. A. Peters, Battle Creek.
Minnie Perkins, Berrien Springs.
F. W. Phillips, 149 Wabash ave., Chicago, Ill.
Horace Phillips, Elkhart, Ind.
J. G. Plowman, White Pigeon.
Daniel Putnam, Ypsilanti.
H. C. Rankin, Buchanan.
W. E. Ransom, Stanton.
Miss Alta M. Reynolds, Grand Ledge.
C. G. Robertson, Hillsdale.
J. W. Robinson, Manchester.
J. M. Rogers, Richland.
E. M. Russell, Paw Paw.
Wesley Sears, Mount Clemens.
O. C. Seelye, Owosso.
M. F. Scott, Grand Rapids.
J. W. Simmons, Dowagiac.
James A. Sinclair, Belleville.
Erwin F. Smith, Lansing.
T. F. Smith, Allen.
W. L. Snyder, Grand Rapids.
Z. C. Spencer, Battle Creek.
Miss Ora Squires.
Clark Stanton, Holly.
J. A. Stewart, Monroe.
E. A. Strong, Grand Ropids.
I. L. Stone, Battle Creek.
H. L. Swan, Lansing.
Ella Tabor, Kalkaska.
C. E. Taggart, Jonesville.
A. D. Tivy, Coldwater.
Sarah E. Thompson, Romeo.
O. D. Thompson, Romeo.
S. G. Tompkins, Stanton.
C. E. Townsend, Parma.
Ida L. Turner, Fenton.
Victor M. Tuthill, Dowagiac.
J. L. Wagner, Grand Ledge.
N. H. Walbridge, Grand Rapids.
Miss Allie M. Warren, Portland.
F. O. Wickham, Morley.
Edwin Willits, Ypsilanti.
E. A. Wilson, Vassar.
C. C. Wood, Grand Ledge.

PRESIDENT'S ADDRESS.

EFFECTS OF ALCOHOLIC DRINKS, STIMULANTS, AND NARCOTICS ON THE HUMAN SYSTEM.

BY JOSEPH ESTABROOK.

By request, I have taken for the topic of the evening, Instruction in reference to the Effects of Alcoholic Drinks, Stimulants, and Narcotics on the Human System.

The amendments of the school laws by the last Legislature, Chap. 3, Sec. 15, reads as follows: The district board shall specify the studies to be pursued in the district; *Provided, always,* That provisions shall be made for instructing all pupils in every school in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics generally, upon the human system; *Provided, further,* That the text-books used in giving the foregoing instruction shall have received the joint approval of the State Board of Education and State Board of Health.

In conformity with this regulation, the following syllabus was prepared for use in the State Institutes for 1883 and 1884:

I.—ALCOHOL.

1. Its origin: *a.* Fermentation; *b.* Distillation.

2. Its source: *a.* Fruit juice; *b.* Grains; *c.* Starchy substances; *d.* Solution of sugar.

3. Its character: *a.* A poison,—give examples;

b. Relation to animal life:

1. Action on the stomach;
2. Disturbance of normal digestion;
3. Method of removal from the stomach;
4. Explanation of the "alcohol breath;"
5. Disturbing action of the brain;
6. Action on the muscles.

c. Alcohol as food,—not useful;

d. Disturbing effect of alcohol on the intellect;

e. Effect on the will;

f. Alcohol as an alleged protection against extremes of heat and cold;

g. Alcohol as an alleged protection against disease;

h. Alcohol as a cause of vice.

4. *Transmitted effects of alcohol:*
   a. Hereditary appetite for alcohol.
5. *Alcohol in domestic drinks, as cider, etc.*
6. *The proper place for alcohol:*
   a. In the mechanic and scientific arts;
   b. In medicine,—always under the direction of a competent physician.

II.—TOBACCO.

1. *Its nature:*
   a. A narcotic poison.
2. *Its effects:*
   a. On the body:
      1. Contagion from smoking, ulcers, sore mouth;
      2. Tendency to produce dyspepsia, nervousness, an appetite for alcoholic drinks.
   b. On the mind:
      1. Loss of memory;
      2. Irresolution;
      3. Cowardice.
3. *Transmitted effects:*
   a. On sons,—aimlessness, lack of vigor;
   b. On daughters,—nervous organization.

With slight variations, this outline would furnish an excellent table of contents for a text-book for the use of schools, as required by the Legislature.

The character of alcohol, in its fatal influence upon body, mind, and morals, should be thoroughly understood by every teacher. Vitally important questions have been settled by the most thorough scientific investigations, and the most careful induction of facts. It has been demonstrated over and over again, that alcohol is a *poison*. Regnault says: "Concentrated alcohol acts as a poison on the animal economy, and will produce death when taken in large quantities. Injected into the veins it produces almost sudden death by coagulating the albumen of the blood." To this the familiar terms of universal speech bear witness. When persons have taken sufficient alcohol to affect them, they are said to be intoxicated, which literally means poisoned. The word is derived from toxicon, the Greek for poison. From this comes the word toxicology, which signifies the science which treats of poisons and their effects. There are toxic agents which mean poisons; intoxication which signifies the state or condition of being poisoned. Alcohol is universally ranked among poisons by physiologists, chemists, physicians, toxicologists, *all* who have studied, experimented, and written upon the subject, and who have, therefore, had the best opportunities for understanding it.

Sir Astley Cooper said: "I never suffer ardent spirits in my house, thinking them evil spirits; and if the poor could witness the white livers, the dropsies, the shattered nervous systems, which I have seen, as the consequences of drinking, they would be aware that spirits and poisons are synonomous terms." Says Dr. Muzzy: "What is a poison? It is that substance, in whatever form it be, which, when applied to a living surface, disconcerts and disturbs life's healthy movements. It is altogether distinct from substances which are in their nature nutritious. It is not capable of being converted into food, and of becoming part of the living organism. We all know that proper food is wrought into our bodies; the action of animal life

occasions a constant waste; and new matter has to be taken in, which, after digestion, is received into the blood and then changed; but poison is incapable of this. It may, indeed, be mixed with nutritious substances, but if it goes into the blood, it is thrown off as soon as the system can accomplish its deliverance, if it has not been too far enfeebled by the influence of the poison. Such a poison is alcohol—such in all its forms, mix it with what you may." The origin of alcohol is fully ascertained, and may be easily learned, and taught in our schools. It never occurs in nature except as the result of fermentation. It has one origin, whatever form it may assume. It arises from the destruction of sugar, and has no other source. It is not a product of vegetable growth, like all the substances which constitute the food of man. No chemist has ever found it among the compounds built up by plant life. One has said "the solar beam which reaches across the abysses of space, and, in the laboratory of vegetation, takes to pieces poisonous gasses, and puts together their atoms in new groups, which are capable of nourishing the animal body,—this celestial force never arranged together the atoms which form alcohol. On the contrary it is the product of dissolution—of the wreck and disorganization of human food. It has the same origin as those malignant and fatal exhalations which constitute the genius of pestilence—the death and putrefaction of organic matter. Carbonic acid gas, one of the most subtle and prompt of all poisons, is brought into the world at the same birth with alcohol. Distillation is simply the process by which alcohol is separated from the water with which it is diluted in the process of fermentation. All intoxicating beverages owe their specific intoxicating properties to the presence of alcohol; and the intoxicating quality depends upon the amount of alcohol the beverage contains. The following is a brief account of the principal beverages used in this country:

Wine is the fermented juice of the grape. Its strength will vary according to the amount of sugar contained in the grape. The weak wines contain from 7 to 10 per cent. of pure alcohol. The stronger wines are "fortified" by adding from 8 to 10 per cent. to the weaker, and hence contain from 15 to 20 per cent. of alcohol.

Beer is made of malt, water, and hops. Malt is barley steeped in water until it sprouts sufficiently to change the starch of the grain to sugar, and then dried. This malt is macerated in water, and fermented beer, with its varieties,—ale, stout, lager, and porter, is the product. Hops are added to impart the bitter taste and retard the process of fermentation. The amount of alcohol contained in beer varies from one to three per cent. in small beer, to ten and twenty per cent. in ales.

Cider is the fermented juice of apples.

Whisky is obtained by distilling fermented grain or potatoes; and contains from 48 to 52 per cent.

Gin contains from 48 to 56 per cent. of alcohol, and is obtained by distilling fermented corn with juniper berries; but is more frequently made by distilling crude, impure spirits with turpentine, carbolic acid, or creosote.

Rum is made from distilling the refuse from the manufacture of sugar and molasses.

Brandy is made by distilling the fermented juice of the grape, or other fruit. A large share of the brandy is simply whisky colored and flavored.

Every teacher should be able to instruct his pupils on the evil effects of alcoholic beverages upon the physical organism. The agitation of the temperance question during the past fifty years has provoked a most careful and

thorough investigation of the relations of these beverages to animal life. The results determined by such men as Christison, Pereira, and Thomson; of Richardson, Edward Smith, and Wm. Carpenter; of Huss, Hackley, and Hammond, and scores of others,—English, German, and French, who stand, or have stood, in the very front ranks of scientific physicians, are decisive, and should be treated and accepted as with the consideration due to scientific facts.

They all agree that the relation of alcohol to the living tissues, whether animal or vegetable, is always the same, under the same circumstances. In whatever way it is introduced into the body, through the stomach, or skin, or through the lungs in the form of vapor, the effects are essentially the same. It matters not what form of alcoholic drink is taken, from the strongest rum to the weakest beer, the effect is the same, provided the same amount of alcohol is imbibed. When applied to the skin by a compress so arranged as to prevent evaporation, it acts as an irritant, the skin is reddened, and in a short time blistered. A tablespoonful of it taken into the mouth will benumb and blister the whole mucous membrane. Half an ounce held in the mouth a few minutes will so paralyze the nerves of taste that they cannot distinguish between salt and sugar, between bitter and sour. When it is taken into the blood, it produces a similar condition of the brain and all the great nerve centers. The best medical authorities agree that, like ether, chloroform, and nitrous oxide, it deadens the sensibility of the nerves. Dr. E. Smith, F. R. S., says of alcohol: "I hold that its action, in all doses, is always that of a narcotic and paralyzer." Says Dr. B. W. Richardson: "I cannot, by any argument yet presented to me, admit the alcohols by any sign that should distinguish them from other chemical substances of the paralyzing, narcotic class."

Numerous chemical analyses of the blood made by different experimenters show conclusively that when this fiery drug is taken into the stomach it is soon absorbed into the circulation, enters the blood and permeates with it every part of the system. Prof. Liebig says: "By the use of alcohol a limit must rapidly be put to change of matter in certain parts of the body. The oxygen of the arterial blood, which, in the absence of the alcohol, would have combined with the matter of the tissues, or with that formed by the metamorphosis of the tissues, now combines with the elements of alcohol. The arterial blood becomes venous without the substance of the muscles taking any share in the transformation. That is, the presence of alcohol in the blood puts a stop to the natural changes which characterize health, frustrates them by consuming the oxygen which they require, and thus tends to counteract the prime purpose of respiration. Another serious and important change in the blood is this—it thickens the fibrine of the blood, occasions the formation of little clots, which are swept along in the blood current until they reach the finest capillaries where they obstruct the circulation, and according to Prof. Carpenter, constitute the first beginning of organic disease of the nerve centers and other important organs. These changes do not depend upon the introduction of large quantities, for Dr. Carpenter is authority for the assertion that the changes in the corpuscles and in the fibrine of the blood take place when not more than one part of alcohol to five hundred of blood is present. So there are good scientific reasons for abstaining even from the *weakest wines.*

"The effects of alcohol upon the heart have been accurately ascertained. When taken into the blood, it soon comes in contact with the nerve centers which regulate the action of the heart. Its effect is to paralyze them, as chloro-

form does the brain. Under this condition the heart is like a steam engine without a governor,—its motion is quickened. Unfortunately this increased action is taken for strength on the part of the organ. Dr. Parkes, by a series of careful experiments, found that the pulse of a man beating 74 times a minute, or 106,000 times in twenty four hours, when drinking only water, was, under the influence of one ounce of alcohol a day, forced to beat 430 times more in the same time. Two ounces caused an increase of 1,872 beats a day. Four ounces caused 12,900 extra beats. Six ounces, 18,432, and eight ounces, 25,488 unnecessary beats. This experiment is of great value, as it shows very clearly how alcohol wastes not only the force of the heart but of the whole body. It has its special local action."

Dr. Christison, among the highest of English authorities, says: "Poisons are commonly, but I conceive, erroneously, said to affect remotely the whole system. A few of them do indeed seem to affect a great number of the organs of the body; but much the larger number seem on the contrary to act on one or more organs only and not on the general system." Strychnine when introduced into the system takes effect on the spinal chord. The oil of tobacco paralyzes the muscles of the heart. Arsenic inflames the mucous membrane of the alimentary passages. Mercury affects primarily the salivary glands of the mouth. Manganese acts on the liver. Is alcohol subject to this law of local action? If so, what portion of the system does it seek out and fasten on by a kind of natural attraction? This is a question of the utmost importance in forming our judgments and determining our instructions on this subject. For there are immense differences in the value of these organs in our physical and mental economy. Are the attacks of alcohol directed against subordinate portions of the human constitution? Or does it make its assault on the very citidel of manhood, carrying its ravages into the very region of thought, conscience, and volition? Alcohol poisons the brain. Prof. Youman says: "It is to the apparatus of sense and reason and responsibility, the *nervous system* and especially its great center, the *brain*, that alcohol is first attracted after it has entered the circulatory system, and this mechanism, the soul's consecrated instrument, affords the chief theater of its ravages. Were some inferior organ of the body, whose functions were of a purely physical or chemical nature the object of alcoholic invasion, the attitude of the question would be greatly changed." "But," continues he, "alcohol is to all intents and purposes a *cerebral poison*. It seizes with its disorganizing energy upon the brain, that mysterious part, whose steady and undisturbed action holds man in true and responsible relations with his family, with society, and with God. It is this fact that gives government and society their terrible interest in this subject."

But if the evils of alcoholic drinks were confined to man's physical nature, if the diseases which it generates did not extend beyond the material—the brain, the liver, the lungs, the muscles, the nerves, and fluids of the house we live in—though great, they might be borne. But what constitutes the great, the essential evil of intemperance in the use of intoxicating drinks? It is the voluntary surrender of reason and self-control to the gratification of an artificial, unnatural, and beastly appetite. The intemperate man, for a time, divests himself of his rational and moral nature; voluntarily casts away his self-consciousness and self-control. He sins directly against his highest nature, against that divine principle which distinguishes between right and wrong, between truth and error. All other evils are trifling when compared with this; indeed, they nearly all flow from this as the stream flows from the

fountain. It is in accordance with the eternal fitness of things that this should be so. When a rational being lifts a suicidal arm against his highest life, when he, of his own choice, puts out the eye of reason and of conscience, it is fit that he and all others should receive some startling warning of the magnitude of his guilt, that terrible outward calamities should bear testimony to the ruin he has wrought; that the handwriting of judgment and woe should be traced on his countenance and form and whole condition, to declare what a fearful thing it is for a man, God's responsible offspring, to *renounce his manhood*, and make himself lower than the brute. It is this moral ruin that the use of alcoholic beverages works in the soul, that gives it the denomination of *giant* wickedness. If the intemperate man could drink to insensibility, and arise from his debauch, with intellect unimpaired and heart unpolluted, the crime would be stripped of its most appalling feature. Intemperance, in the use of alcoholic liquors, in its ability to weaken the intellect, to dethrone reason, to stifle conscience, to undermine the moral nature, and make the will the slave of a despotic appetite, asserts its supremacy over all the vices that curse and degrade mankind.

Our youth should be taught that the use of alcoholic liquors shortens life. No fact is better established than this. Dr. Willard Parker, of New York, shows from most carefully prepared statistics that for every ten *temperate* persons who die between the ages of twenty-one and thirty, fifty-one *intemperate* persons die. Hence it appears that the mortality of liquor-users is five hundred per cent. greater than that of abstainers. Mr. Neison, the distinguished English actuary, has shown, from statistical data which no one can controvert, that while the teetotaler at the age of twenty years has an average chance of living forty-four and one-fifth years, the drinking man has a prospect of only fifteen and one-half years of life. At thirty years of age the total abstainer may reasonably expect to live thirty-six and a half years, while the dram-drinker will be quite sure to die in less than fourteen years. The London Life Insurance Society divides its insurers into two classes, abstainers and moderate drinkers. During the last twelve years it is found that one-fourth less have died among abstainers than among moderate drinkers. Only three abstainers die to four moderate drinkers. More that 70,000 persons die annually in this country from the effects of liquor. One of the saddest of the entailments of drinking habits is that so many men of transcendent genius, the brightest ornaments of the race, have been numbered among its victims, while some of their most brilliant productions have been ascribed to the influence of alcoholic beverages. Leigh Hunt says that Don Juan was written under the exhilaration of gin and water, leaving us to infer that without such help Byron could never have accomplished it. No conclusion could be more unwarranted than this. Before this can be admitted, we insist that the comparison shall be instituted not between Byron under the influence of the narcotic, or in the state of nervous prostration that invariably follows, and the same great poet, as he might have been if he had never felt the withering touch of alcohol. Later in life its effects were apparent to all. He died at the age of thirty-six. Macaulay says of him: "Midnight draughts of ardent spirits and Rhenish wine had already begun to work the ruin of his fine intellect. His verse had lost much of the energy and condensation which had distinguished it."

But alcohol is not only a poison, whether in its pure state, or diluted in the form of whisky, brandy, gin, or wine, hard cider, beer, or ale; the best authorities tell us that it is subject to the same laws as other poisons, to stifle con-

science, to undermine the moral nature, and make the will the slave of a despotic appetite, asserts its supremacy over all the vices that curse and degrade our race.

Children should be taught the nature and laws of artificial appetite: 1. A universal tendency to an increase of the quantity to secure the same degree of gratification; 2. The universal tendency of disturbed conditions of the brain and stomach to weaken the power of the will; 3. The well known tendency of indulgence in the use of narcotics, such as alcohol, tobacco, and opium, to strengthen and intensify the appetite and desire. Thus it may be seen that the tendency of the use of any one of these articles is to increase the strength of temptation, and at the same time and in like ratio weaken the power of resistance. Hence total abstinence has a thoroughly scientific basis. It is the only absolute safety from all the fearful consequences, physical, intellectual, and moral, that flow from indulgence.

ADDRESS.

THE TEACHER'S PERSONALITY.

BY EDWIN WILLITS.

The personal and impersonal, the *me* and the *not me* of the dialectician, in the restricted sense that the *not me* shall be cognate to the *me*, and the *me* shall be a potential activity and the *not me* a potential possibility. Mind acts upon mind, because it is cognate. Mind influences mind, because it is mind. Matter hooks itself to matter, because it is matter, but gravitation weighs it according to mass, not according to individuality or activity; it is always dead weight, in that it is constant, unvarying, necessary—there is no personality. Segregation may promote activity and motion, and may swing an individual in an orbit, measured by the spheres, but it weighs the same relatively wherever it hangs in space. The cyclone is the energy of two conflicting atmospheres whose destructive power can be put into the balance and weighed, but it is not a dead weight of gravitation alone, for it has gathered into the storm's center the activity of other forces; of heat and electricity, each having its own law, heat upon heat or no heat, electricity upon electricity or no electricity, all developing forces that charge along the path of destruction in unison; but in one sense all dead weights of so much gravitation, so much heat, and so much electricity; in all no personality, no discretion. Given the same conditions and the results will be as certain as that a stone will fall to the ground. Chemists may analyze and philosophers predict them.

A growing tree is possible because it has still another elemental force. For the first time in the order of Nature we find a personality, a lower type of it, yet the purest type extant. The tree will stand and grow though it stands alone. It has something in it that controls matter and heat and electricity; it gathers from nature, absorbs, eliminates and grows in its own way. We say it has life. But what is life? Whence comes that primary throb that we call vitality, that individualizes a tree, a horse, or a man, so that there is kinship between them? There is no kinship between stones. The strong man stands by the side of the oak, he only needs the acute ear to count the pulsations of life common to both. The frail woman stands in the bower, and roses and mignonettes and violets commune with her and speak to us through her of a common life that adds lustre to her eye, glow to her cheek, and fragrance to her womanhood. Is there an ocean of this life whence comes the individual globule; an all pervading essence in which all things exist, and from which is crystallized the individual impulse that gives personal life? So that when it once enters into an organization it lives and grows, and braves the storm, and

fights the tempest, and resists decay. But when it departs it bows to the storm, droops its head and dies. There is a mystery here past all finding out, a perpetual miracle, daily and hourly, as marked as when "the Lord God formed man of the dust of the ground, breathed into his nostrils the breath of life, and man became a living soul." But this is not the time to enlarge on this phase of the subject, however fascinating it may be. The point of discussion is the personality of this life.

Every living thing is an individual, has an individual personality with a self-reliant purpose. Every plant and shrub and tree has set up in business for itself, and so long as this breath of life is in its nostrils, it attends strictly to business. It has a personality, but has no cognate impersonality. It has no communion with its kind, save in one incidental way which will not here be noted. It stands alone a living being levying tribute from nature without reciprocity. Its sole object is to live and grow and in its ripened maturity leave a germ for a new life, a new potentiality. We have seen that the cyclone had activity and force, but neither personality nor discretion. We find the elemental force that gives that personality is the principle of life. Whence comes discretion?

It matters not so much to-night as to how it comes, as that it exists, and is an attribute of mind. Man has matter. So far well. Man has life, such as the plants. So far better. It marks a higher grade, as it gives him a personality. Man has mind. So far best, as it gives him impersonality, and this impersonality measures his domain. Every particle of matter has jurisdiction over every other particle of matter in the universe. The atom pulls the sun and is pulled by it. Every mind has jurisdiction over every other mind with which it comes in contact, to influence if not to dominate. There is nothing illogical, therefore, in prayer. Given a divine mind cognate to man's, the conditions of influence exist, and whether properly and effectually exerted or not, depends upon other conditions.

It is therefore this cognate impersonality that so supplements his personality, that measures man. He does not exist for himself alone; he cannot. His impersonality goes with him as truely as his shadow, and yet not as his shadow, for that emanates from his personality. Emerson has somewhere said "An institution is the lengthened shadow of one man, the Reformation of Luther, Methodism of Wesley," "A man, Cæsar, is born and for ages after we have a Roman Emperor." Like all illustrations, this should not be crowded too far. The influence of a man upon the age is something more than a shadow. A man's reputation goes with him as his shadow, but his mind is a motive power, an affirmative force that reaches out with lengthened radius towards the infinity. The magnet, to look at objectively, is a simple piece of iron with tenacity enough to bind a beer barrel, and elasticity sufficient for a watch spring, but once set it on its travels and everything cognate stands on end. Emerson hinted at this subjective power in man when he said that "All history resolves itself easily into the biography of a few stout and earnest men."

Eighteen hundred years ago there was born in Bethlehem of Judea a man child. Objectively considered he was only the son of Joseph the carpenter; but subjectively he had a personality, that has been felt through all the intervening ages. It was not so much what he said, though well said, as how it was said, and not so much how it was said, as how he lived. Behind the throne of every royal utterance is a sentiment of more value than the language in which it is written. The breezes that so long and so steadily have come from the sea of Galilee have refreshed the panting souls of mankind; but better than that,

they have had healing in their wings, they have wafted spicy odors and the aroma of a pure and sweet life.

"That was a good sermon we had yesterday," said one huckster woman to another at the market of a Monday morning.

"What was the text?" was asked by her companion.

"I do not recollect," she replied.

"What was it about?"

"I do not recollect, but this I do know, that I went right home and burned up my false bushel measure."

Some philosophers have designated man's crowning attribute as his power to talk. Leiber makes much of his power of conversation, and leads us to conclude that this faculty is the prime distinction between us and the lower animals. I have no sympathy with such a classification. Man is not a mere talking machine, to be measured by so much gabble, gabble, but by the sense he has, backed by character. Words are but the vehicle of thought, and thought is only an incident of the man himself, who has within himself that unuttered power, that personality that drives home a truth. In the ultimate analysis this power will be found the controling agent.

Some men leave with you an impression that they have not exerted themselves to the fullest extent; that there is a reserved power, which if called out by some sufficient occasion would do wonders; and this faculty is almost as valuable as the supposed unused power, as, when the emergency comes, all minds turn to him as the man who has wares or resources in reserve; and this confidence will beget success, though in fact the man is bankrupt.

Other men's influence can better be felt than described. To this day Henry Clay is an enigma. Read everything extant about him, anecdotes, biographies, and speeches; talk with men who personally knew him; but in no one nor in all combined are there sufficient data to make up that tremendous influence with which, for thirty years, he ruled public sentiment. His speeches read tame, his biographies are fulsome, and the portraits that hang in the capitol unimpressive. There is no mistaking Webster's portraits. There is the broad brow with majesty enthroned. There is no uncertainty in classifying his speeches. The roll of their thunder has not yet subsided. But what was there in Henry Clay that would induce men to go hundreds of miles to hear him speak? What was that power that cracked the whip of dominance in the House of Representatives that smarted on men's backs, but made men's wills his abject slaves?

He had that quality of forceful energy and arbitrary singleness of purpose that James A. Garfield lacked. Garfield lacked magnetism. Henry Clay must have had it in an eminent degree. Garfield had no personal following; at least till a short time before his death. Clay had it from the time his foot struck the national rostrum. Garfield was a broader man, a fuller man, a more cultured man, and in some respects a more powerful man; but he lacked that element that confers dictatorship. His hand was large and muscular, but soft and pulpy; Clay's lean and smooth with nerve lines along it like whipcords. Clay was the rarest leader, Garfield the best fighter in the ranks this country ever had. Clay never changed his vote during roll call; Garfield frequently. Garfield had a highly developed moral sense that bothered him; Clay had but little. Garfield was a giant when he knew he was in the right, but a coward when in doubt; Clay was always in the right. Garfield would surrender all the outworks to the enemy and neglect everything till the final assault, when he would draw that broadsword of his and singly

meet the enemy with blows that resounded through both camps; Clay never called in a picket, nor surrendered an outpost; and this in spite of his reputation as the great compromiser, for in nothing else was his leadership more manifest than in his change of line of battle under fire. Clay impressed himself upon the men of his age; Garfield upon the thought of his times. Parliamentary leadership failed to win the presidency for the one, but the moral sentiment of the nation carried the other almost against his will to the high station that may well crown any man's ambition.

Now, these two characters illustrate in a marked degree the quality of personality we have been describing and the domain of the impersonality they traversed—the one of men, the other of thought and intellect. Each in his sphere was master and was nothing and deserved nothing except in his power to impress others. This power to impress is the divine attribute that goes with a man or woman in every vocation in life, this something that we cannot define and yet all acknowledge; that is felt in the sick room by the super-sensitive patient whose restlessness is aggravated or allayed by the mere presence of a human being; that is marked in a tone of voice or a gesture; that can sway an audience to tears or laughter; that makes man a living fact.

We have all been rereading lately the story of David and Goliath. I read it this time with an added interest, in that I found a new marvel in it. To think of it there was nothing marvelous in the way David killed the giant; it was an unexpected termination of the contest, but it was simple enough; any shepherd boy could have done the same thing. But the marvel is how he got into place to do it. Let us look at the situation. The challenge had been given and accepted to end the contest by wager of battle, one champion on each side. For forty days a champion for the Israelites had been sought for and not found. A shepherd boy 20 years old, who never had drawn a sword, or thrown a spear, presents himself to Saul, who stood head and shoulders above the stripling, and offers to take up the gage of battle. And Saul said to David thou art not able to go against this Philistine to fight with him; for thou art but a youth and he a man of war from his youth. David talks with Saul a while, tells a story about a bear and a lion he had mastered, which, if true, would show no necessary fitness for the impending contest, save that of personal courage. But the truth of the tale seems to have been implicitly accepted in spite of its improbability without any effort at verification, and at once this man of a hundred battles believes the story, and the ability of the boy who tells it to cope with the Philistine, with whom none of Israel's noted warriors dare measure lance. And Saul said to David: "Go! and the Lord be with thee." Then Saul clothes David in armor and puts a sword into his hand, and David lays them aside, saying he has not proved them, and takes his staff and goes forth with the destinies of all Israel on his head; for if he falls, Israel will flee to the mountains, will accept defeat; that is the law of the case, the common martial law of his age. And Saul lets him go, and go without question. Looking at it from a rational point of view, the wonder is not that David offered to be, but that Saul accepted the champion. What glamour was it this shepherd boy used over this king of Israel, that made him see success in this stripling? It was the witchery of a born leader of men. The same kind of personality that made Napoleon, Cæsar, and Alexander. The Almighty had chosen David to be king of Israel. It was no accident; Jehovah never mistakes his instruments; there was the germ of royalty in the boy, there was kingship in the man. He had the power not only of great things himself, but of making others see things as he saw them, and do things

he wanted done. Jesus saw Simon Peter, and Andrew, his brother, fishing in the Sea of Galilee, and he said, follow me; and they left their nets and followed. He saw James and John mending nets with their father; he called them and they left the ship and their father and followed. He saw Matthew sitting at the receipt of custom, and he said, follow me; and he followed. David said, I can slay this Philistine, and Saul believed him: there was the presage of victory in him.

"A man's a man,
But when you see a king, you see the work
Of many thousand men."

The world is full of men and women who have the divine suasive power that shapes things to their behests.

Once on a time, when jewels flashed
And rose-hid fountains softly plashed,
* * * *
A courtly dame drew smiling near
A poet, greatest of his time
And chirped a question in his ear
With voice like silver bells in chime:
"Good Master Shakespeare I would know
The name thy lady bore in sooth
Ere thine?"

The name was given.

"And good sweet sir," the dame pursued,
Too fair and winsome to be rude,
"'Tis hinted here and whispered there,
By haughty knights and ladies fair,
That—that—well that her loyal lord
Doth e'en obey her slightest will.
Now my good spouse, I pledge my word
Though loving well doth heed me ill,
Her witchery I pray thee tell."
She pleaded with a pretty frown,
"I fain would know what mighty spell
Can bring a haughty husband down."
Blushing she raised her eager face
To his with merry plaintive grace.
Then answered he
With dignity,
Yet blithely as the hour was gay,
"Fair lady I can only say,
Ann hath a way."

Aaron Burr was asked once what is law? "Law," he replied in that taunting voice which he could so well assume, "law is whatever is boldly asserted and plausibly maintained." Here, you may say, spoke the successful advocate, but it was all the more true that it was so defined by a man who had made the definition true. The books are full of lawyer-made law, a clear usurpation of the functions of the Legislature. It is none the less so that it has the assent of a court; behind all you will find the tag of a lawyer who boldly asserted and plausibly maintained it. There is scarcely a statute so broad that it may not be compassed, so clear that it may not be obscured, or so stringent that it may not be avoided, given the proper case, the suitable occasion, a positive, well-equipped lawyer, an impressible jury, and a plastic court. This would occur more frequently but for that instinctive good sense that from time immemorial has pitted a lawyer on the other side with an average result of truth and justice. This is not deemed necessary in any other profession.

Clergymen fire at each other at long range, which is generally more demonstrative than disastrous; and yet the sincere minister of the gospel who has the sins and base impulses and, perhaps worst of all, the inertia of mankind to contend with, has a field of the impersonal much broader and much more important, reaching as it does into that unseen dominion which no man has yet traversed.

In a material age like this there is more stress laid upon the power to win bread than any other faculty. The how to make a living, is the great consideration of the times. A practical education is the thing sought. This is not to be deprecated up to a proper point. The first consideration is the ability to sustain the animal whose wants are first in the order of nature and are abiding and clamorous clients. But mere animal wants are easily supplied as a rule. Comfort and taste cost. Luxury is expensive. These are all relative. Making a living is no secret. An imaginary want has a voracious appetite that feeds on fortunes. An unguided, unrestrained appetite will digest more farms than sagacity can win. The secret is not so much how to get, as how to use; not how to keep as how to spend. Nine-tenths of the pauperism extant to-day is to be charged to something beside incompetency to make a living. A system of education based on the bread-winning theory will make moral cripples and mental imbecility. A teacher that doles out only "practical" diet will have a lean flock. It is well to teach how to compute interest on a note, but it is better to know how to keep your name off the note entirely, or if on at all that it be for a proper investment. Good judgment is better than great riches, a level head than a whole dictionary of words, and a sound principle than a whole table of logarithms. The main thing is to strengthen the mind, fortify the will, and develop the personality. Do not overload a child with anything, neither with facts, nor homilies. The mind is broader than any fact. Facts are less important than the power to sort them. A laudable impulse is better than a gift; the one halts at its acceptance, the other goes on and on world without end. It runs on all fours with that personality that lays hold of all things, of mind and matter, facts and principles, creeds and crowns. A man with an impulse owns all before him and draws in his train all behind him. Inspire a child with a definite purpose and all things else will be added to him. How to start the impulse, how to inspire the purpose, that is the secret. Dr. Nott of Union college had the secret. He sent out a generation of young men who had minds of their own and knew how to use them. Some men sow broadcast and garner but little because there are but few living germs in the seed. A teacher should have purpose himself, should have impulse, should have the living principle in him. A live teacher will always have live scholars, and live scholars will soon outgrow the text-books, and, if he does not look to his paces, outstrip the teacher.

Pardon this catalogue of virtues, this epitome of vices in education. I have an impression that I cannot shake off, that out system of education is too diffusive; that we are trying to do, not too much, but too many things; that the weary arm-loads of books are the precursor of a weary burden for the mind as well; that we are chasing after too many small facts, memorizing a host of worthless trash. I want our teachers to be in as dead earnest as our lawyers, our doctors, our merchants. I want them as earnest as a book peddler or a lightning rod agent. Much is said about our teachers getting into ruts. I believe in ruts,—every good lawyer has his rut. He travels over and over again in the same tracks, and he makes a rut. He is not worth anything without it. He would scatter without it. But let it be a rut of his own

making; let it be like the channel of a river, which makes its own banks, and let there be enough of him occasionally to overflow. Let him go to the mountain springs and the hillside rivulets; let him sometimes thrust his hand into the clouds and gather in the torrents that shall sweep over the face of the land and fertilize it. Every live teacher makes just such a channel, and when he has that in him that can rise and swell and overflow, he will command all things, salaries and school directors and public opinion, but better than all else, his own way to the mighty ocean.

Edmund Burke, in that masterly letter "to a noble Lord," deplores the fact that Providence had taken from him a worthy and capable son, leaving him without an heir to perpetuate his name and his honor and to vindicate the partiality of his sovereign, who had placed him in the line of the titled aristocracy of England; and in the humility of a broken heart he considers his loss irremediable; for he says, "at this exigent time the loss of a finished man is not easily supplied." What pathos in the suggestion—the wreck of a name, the destruction of a title, the ruin of a house; no hope of posterity, that fruit of ripened maturity of Manhood,—"the loss of a finished man." Who shall put a price upon a finished man? Who shall give us the full analysis of what constitutes a finished man? In him is the vitality of two human beings, all of the just, and the true, and the good that can be imparted by love and care and daily duty and patriotism and religious purpose; all history is his instructor; all art his benefactor; for him the sun shines and the rain falls; in him are the divine elements, the crowning work of nature, the emblems of sovereignty; the future is the realm to which he has fallen heir, and in which lie possibility and royalty.

When is a man finished, and at what age? Montaigne was a finished man at 13, William Pitt at 21—some men are never finished; some, like the Rhode Island Greening, must wait for time to mellow their juices and tone down their asperities. It takes time to finish a man; as Burke said, he could not be easily supplied in an exigent moment; but sooner or later, when finished, his faculties are rounded out, equally poised, athletic, an independent personality facing the great impersonality.

How shall he be finished? What a waste of waters has this question traversed, leaving no certain track for us to follow! Throwing aside all sophistry, unhorsing all hobbies and going to the root of the matter, he is the best finished man who has the facilities, the scope, and the wish to finish himself.

So far as we are concerned we have ended our duty, when we have given him just facts enough for nutrition, just rules enough for general guidance, just language enough for lucid expression, and logic enough for discretion; then if he has will, which we cannot give, and keen desire, which we can only stimulate, and sound principles, which will come largely from our good example, he will be better left alone. You can only start him in life; I beg of you start him as a finished man. He may be young, he may be small, but let him be finished; let him be in harmony with himself; all his faculties free, age will round them out, and he will grow into the full stature of manhood with a personality whose divining rod shall tap all the springs of nature, and whose magic wand shall marshal into line wealth, and honor, and high station, and everything that is good in this life and the life to come.

REMARKS BY GOV. BEGOLE.

MR. PRESIDENT, LADIES AND GENTLEMEN,—I am glad of this opportunity to express my high appreciation of the grand and good work in which you are engaged. I value it. I am interested in it, and I have been so interested from my early manhood to the present time. I was a district school teacher for several winters. The generation of that day did not have the advantages for acquiring an education as the boys and girls of to-day have. We had to be contented with three months' schooling per year, the remaining nine months at work on the farm. Our log school-houses were seated with slab seats around the room; and heated with a fire place at one end of the building, so that the children had to change about to warm themselves. Yet the boys and girls of that day got a good practical education.

A short time ago I attended the opening of the new Library building at Ann Arbor. While looking at the beautiful building, and listening to the exercises attending its opening, I could not help thinking of the men of my age, a long time ago, how few are left. They were the very men who founded the great University which gives so much credit abroad. I was one of the founders of that institution.

It is unnecessary to state to you that I am unaccustomed to public speaking of this kind. I have had some experience in talking on politics but have never had the honor of addressing an audience of educators. I am proud of the opportunity. Before closing, allow me to speak a word for your honored President, Mr. Estabrook. I have known him for years and have watched his progress with interest, and as years go by I know and honor him more and more. His days of usefulness are apparently far from their termination. I hope it will always be the policy of our people to keep good teachers when we get them. The perpetual changing of teachers is the great evil of our district schools.

When listening last evening to the eloquent and entertaining address of our friend Mr. Willits, I was proud and pleased to know that he is at the head of our Normal School. I have known Mr. Willits from boyhood up. I have watched his progress and rejoiced at his success. I watched his record as a Congressman, and I now say that if his district had kept him in Congress he would be worth more to the state than the entire delegation is to-day. Our people make a great mistake in not returning men to Congress for more than one term. My own district very rarely sends a man for second term, and I consider that she might as well not have been represented at all. Again allow me to say that I am glad of this opportunity of meeting with you, and wish to express my sympathy with your work, and that I am willing to do anything in my power to aid you in your work, and bid you a hearty God speed.

PAPERS AND DISCUSSIONS.

COURSES OF STUDY FOR SMALLER HIGH SCHOOLS.

BY H. C. RANKIN.

There is a current opinion that something is the matter with the high school. Journalists attack it vigorously; newspapers allude to the disease in a sarcastic way, but do not point out any remedy. Ex-Gov. Butler attacks the high schools of the old Bay State. Men of learning say "the high schools are all wrong." These rarely attest their wisdom by suggesting methods by which this great wrong may be righted. Practical educators exclaim "too much cram," but it seems difficult for these reformers to draw the line between theory and practice. Many of their experiments are in the crucible; the alloy still mixed with the gold. Business men throw out broad hints of our errors, but they have no time to investigate. Him who shall solve the problem how to make our high schools most useful to the masses, a civic wreath of greener laurel awaits than ever crowned the victor at Olympia. Alas! I am not he who shall stand before this array of pedagogues, exclaiming "Eureka!"

In the older schools of medicine, bleeding was a remedy for all ills of the body. In the days of '61 and '62, at sick call, we stood before the surgeon's tent and received our rations of quinine and blue pill for all diseases flesh was heir to. During the prevalence of our much vaunted school system courses of study for our high schools have been prescribed in much the same way, without reference to local demands.

By no means is it the work of a novice to lay out courses of study for our smaller high schools that shall meet the expectations of the past, the requirements of the present, and the demands of the future.

The much talked of Quincy methods seem not yet within our reach. We, certainly, do not desire to introduce the arts and trades into our smaller high schools. The education of the hand is not pressing to the front as thirty years ago.

When a trade is learned by years of application the next day announces the discovery of a new force in nature which men of education at once harness that it may be controlled and directed. Every decade sees many trades practically set aside by use of new machinery. Our higher civilization creates an inventive spirit that renders years of apprenticeship theoretically useless. Industrial education can have no sure place in our schools. The practical is something different from this.

The stubborn fact remains for us to face, that "there are more first-class places than there are first-class men to fill them." The demand for intelligence

to direct exceeds the supply. There is no round of daily toil that cannot be advantaged by education. Industry divorced from knowledge is a "mariner upon an unknown sea without a compass." Yet the varied industries of Michigan give shape to advanced education, and more or less hold in their grasp the destinies of our high schools.

The general education that has been in our schools and is yet furnished, modified to meet local demands. is the best practical education thus far developed.

We are to consider in this paper what ought to be done in our smaller high schools. "Not how much but how well" is by no means an axiom in our high schools.

Book-keeping, rhetoric, astronomy, geology, chemistry, mental and moral philosophy, ancient and modern languages, music, drawing, painting, clamor for recognition and admission.

I protest against the theory that village high schools shall conform themselves to one course of study. The mining district, largely of foreign parentage with its mass of pupils irregular in attendance, does not readily adapt itself to the Latin-scientific course. The manufacturing town where pupils come and go, and go more than they come, cannot do the same kind of work as the more retired centers of our fine agricultural districts. In the latter towns the average attendance at school is not more than five years, all told.

Shall these pupils be denied the advantage of higher studies because they are not up to grade? Common sense says, "too much trash" down stairs, and asks us why we do not clear away the accumulated rubbish instead of covering it with *nickel plate*. We are all seeking the best. We think we are doing the best, yet many of us are satisfied that our high schools are not yielding very profitable returns for the amount invested. We sow the seed, cultivate the growing crop, uproot tares, destroy weeds, but there is not a satisfactory result.

There are many obstacles in the way. Too small proportion of our pupils reach advanced grades. Our compulsory law exists; some of us would like to see it extended two years. Others with more philanthropy if with less philosophy prefer to send out the missionary rather than the officer after the truant. Our compulsory law does not do any harm even in our villages, but there is no real penalty attached and it seems to be no one's business. Under existing circumstances the teacher can effectually reach more than the constable.

It is true the indifference and neglect of parents to send children regularly to school is a hindrance to our work. Localities differ in this respect. Where a boy can earn 50 cents to $1 per day at some light work in the shops, it is difficult to have him see that he can really earn more in a *good* school. Missionary work will not always reach the parent.

The reverence of the average American for the dollar is born in him. He comes by it naturally. The pupil is absent from school and sometimes obliged to be; the bread and butter question is a serious one. Frequently in our smaller schools we adopt the rigorous city restrictions relating to tardiness and absences. After five half days we send warning to parents that we will suspend pupil, and possibly the boy is "keeping the wolf from the door" while the parent is "under the doctor's care." Against such proceedings I protest. Do we not drive away from school as a rule the very class who need our influence the most? The public school is designed for the masses. Why suspend a pupil all the time because he is obliged to be absent part of the time? Our greatest difficulty at present is securing regular attendance and

it is hardly possible to obtain it by making absence a penalty for previous delinquencies. "Our village high school ought to be more elastic and adapt itself to surrounding circumstances."

Our success as to quality of work depends much upon the trained teacher. We, annually, grind out grists of graduates, the largest list just as we are about to withdraw from the school. Many of these pupils have dipped into everything; tasted science, chewed language, swallowed arithmetic, and digested nothing. Our School Boards do not help the matter by putting the graduates with the longest essays in the lower grades as teachers.

What the course should be in our high school depends largely upon the preparatory work in intermediate grades. As long as we adhere to the practice of experimenting upon new and untried teachers in primary grades, we shall be obliged to do district school work in our high schools. Granted, that new teachers must commence somewhere; admitted, that all teachers of experience do not know how to teach. Too small proportion of our teachers get Normal training, or its equivalent. Let us rejoice that the prospect for trained teachers grows brighter and brighter, for the demand is imperative.

This deficiency is remedied largely by hard-working superintendents and principals. Even here there are obstacles. Their time for supervision is limited. In our smaller schools from one-tenth to one-quarter time is given them, or rather they take it. Many of us spend that time doing little harm as possible, endeavoring to avoid jars and collisions, trying to have everything run smoothly, going 'round obstacles and keeping harmony in the district. We see there is something wrong, but we are loath to create any excitement. Such schools may look well on the outside, but they are like the beautiful apple with a canker worm at the core.

The enthusiasm and devotion of Estabrook, joined to the independence of French, will remedy this kind of school.

Too many of us at the head of graded schools are working constantly for No. 1. We have an eye upon a larger school; we long to plead for a client's justice and to harrow the minds of jurors; to stand in the pulpit; to write prescriptions in Latin. We give the time that should be devoted to missionary work to getting ready for another profession. Emerson, asked by a friend where he should send his boy to school, was more than half right when he replied: "Not what school but who is the teacher."

The primary department of a graded school of two teachers is better because of the secondary. Good work ought to be done in a school of three teachers. They can do eight years' work to advantage; if the minor branches are taught by teachers who understand and enjoy their work, much of science, language, philosophy, and history, may be interwoven. There will be an advanced room; why not call it a high school? Need it attempt to do the same amount of work as Pattingill of Ithaca, or Plowman of White Pigeon? If the course of this high school be reading until he can write correctly ordinary business letters and forms, arithmetic as we use it in active life, general geography, hygiene of the school-room, language lessons, that he do less violence to his mother tongue, U. S. history, civil government; and if these branches be well taught, this school will reach a higher standard than ordinary schools of this class, and the fortunate pupils will be prepared for advanced instructors. The foundation work ought to be well laid, and in order to do this well, reviews of work hastily done in lower departments where teachers have three grades each, must be insisted on in the high school.

An occasional examination of pupils by county board of wide-awake exam-

iners or by a committee of competent patrons, will give a stimulus to thorough preparatory work.

We mark too high. It gives the pupil a false idea of himself, and he is astonished at his standing when marked by a common sense examiner.

In schools where there are four teachers employed, ten years' work can be done. Again, different work is demanded according to surrounding circumstances. This school ought to be in the hands of a principal of experience, or of one who has had special training for his work. As soon as the principal ascertains that the preparatory work has been poorly done, it should be attacked at once; the building should wait for foundations. I need not relate the story of the poor brick in the wall. Teach reading, writing, spelling, arithmetic, review geography without being confined to text-book, drill upon elementary sounds, correct inaccuracies of speech; be not in such hurry to start classes in Latin and German. Hold back geometry; commence algebra slowly, keeping an eye upon those who do not readily grasp the idea of exponent n–1. In addition to course of study suggested for schools employing three teachers, this high school may study our best authors, the structure of plants, physiology, elements of natural science, outlines of history, algebra. The principal will take two advanced grades; perhaps send a class to recite to grammar teacher, who has seventh and eighth grades. If the languages are begun in this high school there certainly ought not to be more than one year's Latin, and this may be at the expense of English, if not taught in a masterly way.

Eleven years' work can be done and ought to be done in many schools where five teachers are employed. The 8th division will frequently sit in a high room, making four grades in the room without the 12th year.

Localities will effect the quantity of work done and to a certain extent the quality. The character of subordinate work will affect higher instruction. Pupils are hurried into the high school often by the consent and frequently urged by the principal, having passed everything from 95 to 100. This high marking prevails to an alarming extent. If the pupil is wading chin deep in algebra, geometry, Cæsar, chemistry, and is not learning to swim, wouldn't he better make for the nearest shore as soon as possible? There is an occasional case of drowning in higher mathematics; of being swept underneath a subjunctive wave never to rise again; of a broken limb by stumbling over a new nomenclature. If the languages are taught in this school would you attempt going farther than Cicero? If the learner be not well grounded in general information as well as necessary requirements, wouldn't he better post up after wading through Cæsar? Would any man of sense attempt to turn off the same amount of work as in a school where twice as many teachers are employed? The quality might be as good, but here is where we miss it. We aim at the mark but our guns scatter shot; our game flies off to be shot at by better marksmen.

Now I come where the shoe pinches, to high schools which have two to three teachers, including time given by superintendent, the entire school employing six to twelve teachers. These high schools *can* do *good* work, but they are the very schools that attempt instruction in everything the Normal School at Valparaiso advertises, including Normal instruction. The course of study now in some cases is heavier than Battle Creek, even than Ann Arbor. An effort is made to promise to do the same amount of work and to prepare for the University. One can hardly enumerate the studies pursued, at least named in the circular. Chemistry, botany, zoölogy, geology, astronomy, political econ-

omy, book-keeping, 4 years of Latin, 2 years of Greek or German, sometimes French, trigonometry, mental and moral philosophy, rhetoric, geometry, general history, literature, music, drawing, painting, poetry, and the end is not yet. This course of study for high schools with one to two assistants certainly is not lacking in upper stories and mansard roof. There are but few builders but the agreement has been made to finish the structure in the same time as though there were thrice as many workmen. No time of course to put in stays, braces, and girders; it looks strong and the contract will possibly be accepted if we manage to keep on the good side of the board.

Sailing before the breeze in full canvas, we shall some day be struck by a storm of organized public opinions and unless we reef some of our fore and main sky sails, we shall be in danger of losing our mansard. Such schools are not getting boys and girls ready for life's conflicts.

Now this school might do good work in English, including reading, spelling, writing, arithmetic, language. If some of the pupils are preparing for the University or college they can read Cæsar, Cicero, two books of Virgil with homeopathic doses of Latin prose judiciously administred, but why not make the work so thorough that it will not have to be gone over again? Boise's lessons in Greek or equivalent and a few chapters in Anabasis if the pupil wants the discipline of Greek in college. Let the pupils realize that school is a miniature world. Graduate him if you please, but be sure that he is ready for the senior year at Ann Arbor, or any other first-class high school; be sure that he can enter any senior preparatory class at college. Bring him this far and he will find a way to go on, or he will make a way if he strives to do so. Nothing can hold him back if he has not had a taste of everything. Let there be something ahead of him he has not tasted. Aid his digestion by not cramming him. You can make a high-school student dyspeptic. No, it does not matter what he takes, but it does matter very materially who prescribes his medicine.

If a boy has the right metal in him and has been well taught in his mother tongue's necessary accompaniments, he will reach after more Latin and by and by the Greek if he needs it. And he will grow faster and better than if you force him to take it.

There are high schools that have done excellent work in language, and have prepared 5 per cent. of the pupils in Latin and 3 per cent. in Greek for entrance into the University, but the 90 per cent. getting ready for business, at brief notice, have been shamefully neglected. In such schools English is regarded a baser metal; touch, taste, handle everything lightly, but do not learn anything seems to be the rule.

If to get 3 per cent. of the pupils ready for college in high schools with one to two assistants requires the sacrifice of essentials in the 90 per cent.; if it mean poor readers, poor writers, poor spellers; if business arithmetic, history, geography, civil government, English literature, elements of natural science be slighted, and the graduate cannot pass examination entitling him to second grade certificate or its equivalent, then preparation for college better be transferred to high schools where specialists are employed. It will take years of pruning in all departments of smaller schools before we may expect the trees to bear first-class fruit. We must dig round the roots, and not neglect longer thorough pruning. Our young trees have grown too much to *branches*. Our schools must be our gardens, we must plow in the soil of thought, and I believe in deep plowing. We must cultivate thoroughly while the plant is young, keep the growing crop free from weeds and just before maturing work it twice in a row each way. Then the best of teachers, those who love their

work well, shall do *advanced* work in high schools, and not neglect going out in the waysides of life to gather in to educate those so poorly prepared to battle with the world.

Why not have special courses for pupils of our mining, manufacturing, and commercial towns which call for services of the youth at an early age? Why are these boys and girls ignored when we make up our courses of study? Less than five years in school and sometimes less than three months in a year these bread and butter earners are rarely taken into account.

Can't we manage that a boy of 14 years may not be obliged to trudge along with another of eight because he has not had all the preliminary, cut and dried, machine requirements of grade? Why not have the older pupil where reasoning powers of maturer age may be called out that he may make his time count while he is in school, though he be not able to tell the capitals of the oases of Sahara?

Teach him to read, to spell, to write; teach him the principles of percentage (he may want to loan money by and by to the rich man's son) though he has not passed denominate numbers; put questions upon the board each day for him to look up in geography, natural science, and government; teach him to love his country and he will read its history; awaken in him a thirst for knowledge, but do not keep him in primary grades until his personal pride is crushed as he tramps on side by side with his inferiors (in judgment to say the least), glad when he passes forever from the school. He will grow up to be a high-school hater, and will work and vote against it. Why shouldn't he with such experience?

The courses of study should be for the masses. Localities must be taken into account as to quantity, and to a certain extent, to quality of work. Preparation for college should not be the main thing in view for the village high school. Missionary work among parents and pupils must be done by the teachers. Pupils should be urged to make attendance consecutive. They should not be driven from the schools because they are not able to take full advantage of them. Their course of study should generally be chosen for them.

Good reading (I do not mean elocution); legible writing; accurate spelling; a thorough training in English language, including the study of our best authors; a general knowledge of geography; history of our own country; elements of natural science; how villages, townships, cities, counties, state, and nation derive their just powers, and how these powers are exercised; business rules of arithmetic practically applied should be required of every pupil.

If the principal and assistants will be the power behind the throne, organize and direct the workings of a good lyceum. Let it be auxiliary to, and a part of the high school. Let it meet once a week, and as regularly as any session of school. Let it be officered by the students, but unless the teachers are the real power, it will not be progressive. Well selected recitations, good music, *original* essays and addresses, a discussion in committee of the whole, roll call of members responding to their names with appropriate sentiments, remarks under the good of the lyceum, each evening, will furnish an excellent programme. Do not fear too much light. Let the great, social, political, moral, reform, religious questions come before the students for consideration and discussion. Stand at the helm, teacher, with your hand constantly upon the wheel! This will make additional work, but a true teacher has great patience, abounding kindness, untiring industry, unwearying self-sacrifice, and the devotion of a martyr to the underlying principles of true Christian

character, and he should *live for* if he would *live in* his pupil. There will now be something to educate in the full meaning of the term. The pupil will commence to think, and if he has been compelled by stern necessity that knows no law to enter the list of bread winners, he is better prepared to be pushed around by his fellows than if you had given him a smattering of everything. The world we battle with soon takes off the polish unless there is real worth underneath. If he is still at school commence to draw him out; he can feed himself now. The teacher has done the best work of the course when he has created in the learner a desire for higher education. Let the course of study in every school commence with home-like resemblances in the primary, and as the pupil advances try to have the course so elastic that he shall feel himself getting ready to take his place in the struggle for bread into which he may be cast without a day's warning. "Power lies not always in what is taught." Very frequently teachers energize circumstances, and circumstances create power.

Be thou, O teacher, thoroughly trained in methods, but sure success depends upon your own inspiration. "Not in natural endowments, rather in energy is the difference between our pupils." Perseverance wins, but intellect furnishes directive intelligence.

While the learner is gathering knowledge, let us not forget to remind him that God promised Solomon length of days, riches, and honor, if he would walk in the wise ways of David, his father; that all else should be added to his choice of wisdom if he sought "first the kingdom of God and his righteousness."

Oh, that we may realize the responsibility resting upon us as we stand before our pupils as object lessons in morals and in manners. Oh, that we may have the moral courage to stand boldly for right, though we stand alone! Oh, that we may breathe into every lesson we teach the breath of that higher life taught by Him "Who spake as man never spoke before." May we, by the personal magnetism of pure lives, lead our pupils to that "Peace which surpasseth human understanding."

Whatever the course of study, let us try to order our lives and shape our work that "the good desires within our pupils may have their perfect work." Results will grow unknown to our philosophy, and the harvest will not fail.

DISCUSSION OF THE PRECEDING PAPER.

EUGENE MILLER, of Grass Lake, said:

I believe that some Latin should be taught in our smaller high schools, but agree with the paper that we should not aim to prepare students for the University. The high school should make its work so as to assist the pupils of district schools. A principal with one assistant in the high school and a four-years' course, should double his classes, that is, put two classes together, one of one grade and one of another for instance, two grades recite together in a language class or civil government, thus, by selecting subjects that do not require previous study, more studies can be taken and more time devoted to each class.

HORACE PHILLIPS, of Elkhart, Ind., said:

The thoroughness of the education of to-day is seriously questioned. We have too much memorizing of dates in history and not enough of the philosophy of history. We do not deal enough in the practical use of grammar, too much analysis and not enough writing.

C. L. BEMIS, of Portland, said:

I believe that we should spend more time in reviewing studies. It is my belief that the pupils in our high schools should take three new studies and review one old one. When I came to Portland I found that the board had ordered out the classics and I believed it to be a mistake. After a year's experience, however, I have become converted, and now believe that the classics should not be taught in our smaller high schools, and, perhaps, not short of college.

M. O. GRAVES, of Howard City, said:

With the gentleman's remarks as regards the teaching of Latin in the *smaller* high schools I must agree. But to the latter part of his remarks I heartily object. Latin and Greek should be taught and taught thoroughly. During the past year I have been obliged to observe many deficiencies in the elementary training of our schools. In the examination of pupils applying for admission to the Business College, with which I was connected, we found scarcely ten per cent. prepared in the fundamental principles of arithmetic; not fifteen per cent. have a good handwriting. These pupils come from high schools, from village schools, and from district schools. I am sorry to say that in these important branches little difference is to be observed between the district school pupil and the high school pupil. "Brethren, these things ought not so to be."

W. E. RANSOM, of Stanton, said:

The so-called practical studies can be *thoroughly* mastered and yet leave time in our high schools for the study of the classics. I believe that Latin has an effect in the symmetrical development of the mind that no other study can have and, therefore, cannot be dispensed with.

THE EDUCATING POWER OF THE CLASSICS.

BY A. W. GOULD.

We are fond of asserting that the study of the classics is one of the best modes of educating the youth of to-day. Do we mean by this that the mere ability to read Latin and Greek is, in itself, such an essential part of a liberal education that it is worth contending for? Hardly.

There was a time when Latin was the key to all the scientific and historic knowledge of Europe, and Greek and Latin contained the only literary masterpieces worth studying; and at that time the knowledge of Latin and Greek was absolutely indispensable to any real education. If a father could give his

son but a year or two of schooling, the two best things he could have him taught were Latin and Greek.

But now there is nothing worth reading in either language that has not been translated into English, and the scholars of to-day have, with but few and unimportant exceptions, given up the use of Latin as a means of communicating their thoughts to the world. Yet the feeling still lingers in the minds of many parents, especially those who have themselves no knowledge of the ancient languages, that in some mysterious way the ability to read Latin and Greek, no matter how imperfectly acquired, how little used, and how soon forgotten, is education, and that without this ability there is no education. This is the real *Fetich*, the Teraphim of the modern household, that Mr. Adams has discovered by some chance, and held up to the eyes of the world last summer in his famous Phi Beta Kappa oration, as the chief idol of the Colleges of America.

Of course we all admit that, if a father can supplement the common school instruction that his son has received by only one or two years of study before putting him into the business of life, it is better for him to train this son for the duties of his position rather than just start him in Latin and Greek. This the Colleges say by their scientific schools and courses; this the community admits by the establishment of special and technical schools. These schools train, but do not educate. The graduates of our Business Colleges, our Schools of Technology, of West Point and Annapolis, are admirably trained, no doubt, for their special calling, but no one will maintain that they are educated.

But if a father can take time, not merely to train, but also to educate his son, why should we insist upon that son spending several of the most precious —because the formative—years of his life in the study of Latin and Greek? Why is the study of these languages and the reading of eight or ten authors in them an essential part of a liberal education? Is it merely because of the training the mind receives in mastering the difficulties of the languages? If so, then it might seem that the more difficulties they encountered, the more training they would receive; and that consequently the old-style teachers who had their pupils commit whole pages of unintelligible grammar and read the most difficult authors with the most meager notes—and those in Latin—were right, and we moderns all wrong with our many devices for making study easy and even dispensing with grammar altogether, as some extreme advocates of so-called Natural Methods propose to do. No doubt a clever man could make out quite a case and a good one too, for the unconscious mental training the student gets in learning these languages even in the easiest way; but I greatly fear that our scientific friends—or shall I call them our enemies?—would find some specious substitute that would seem to be as good a training field, and something more.

Or shall we assert that Cæsar, Cicero, and Virgil, Xenophon, Homer, and Lysias, and the other classical authors, are so vastly superior to anything in our modern literatures, that no young American, however well read in English, French, and German, can be called educated without having perused four books of Cæsar, six orations of Cicero, and like definitely ascertained amounts of the other authors? Surely we would not admit that we should have to go outside even of the language we speak to find noble and inspiring poetry, graphic and eloquent prose.

If then we do not wish to rest our case for the study of the Classics merely on the splendid training which the student who masters them receives, nor yet

on that combined with the noble literature they contain, what further reason have we to give for still insisting upon their forming an essential part of the broadest and best education?

Perhaps the answer will be apparent when we consider that the Art, the Literature, the Philosophy, the laws and institutions and customs—in short, all the chief elements of the civilization of modern Europe and America—saving only the grand addition of Christianity—are the development and outgrowth of the civilization of Greece and Rome. In what way can a young man of the 19th century gain the clearest conception of our place in the genealogy of nations, the best understanding of our literary forms and our philosophical systems, of the significance of our art and architecture, our laws and institutions? Is it not from a thorough and thoughtful study of the life and literature, the laws and institutions of our intellectual ancestors, the Greeks and Romans? For they are our real ancestors, though we may claim descent from the Goths and Vandals who overran their provinces and overthrew their empire. The laws and institutions of Rome were built so grandly; her language, with its stores of literature and its Greek culture, was so wrought into the national life throught its broad dominions, that we still find their impress, long after that which gave them shape has crumbled away and vanished into thin air like those wonderful molds which human forms have left in the solid clay at Pompeii. And the new matter that was poured into these molds only reproduced the old form and features. Therefore, though aliens in blood, we are still their offspring, and we cannot fully understand ourselves without understanding them. If, as Americans, we need to study the cycle of events connected with the Revolution in order to understand our present state; if, as Protestants, we need to study Luther's times in order to know why we are Protestants; then as citizens of the 19th century we need to study that civilization which has done more than any other single thing—save Christianity—to make us what we are. No other civilization, however complete, no other literature, however perfect, can ever take in our educational system the place of that of Greece and Rome; because they can never stand to us in the same relation that Greece and Rome hold to us. And however far we may advance beyond the literature and civilization of these times, they will still be the historic starting point, the cradle, as it were, of our modern life and literature.

If then I am right in claiming as a result of the study of the Classics, not merely an unsurpassed mental training and familiarity with some of the noblest masterpieces in the world's literature, but also an enlightening knowledge of the sources of our own literature, art, and philosophy, our laws and institutions, does it not follow that some attention should be paid to these things in our teaching? No doubt we occasionally touch upon some of these points, but I fear it is only incidentally and without any systematic progression in our instruction. We take great pains to teach the languages of Greece and Rome in the best way. We are careful to point out the force of cases and moods. We explain the construction of words and their relation to one another, and in all this we do well. But do we take equal pains to teach the literature of Greece and Rome? Are we equally careful to point out the force and beauty of the thought and expression? Do we explain the construction of the work itself and the relation of its parts to one another? its merits of conception and of execution? the qualities, in short, which make it one of the world's masterpieces? Do we criticise the abominable English into which the grand thoughts are too often rendered? When we have shown our students the plan on which Virgil built up his harmonious lines, do we also show them

the incomparably nobler plan on which he built his great epic? Do we show them wherein he failed to attain to his ideal—that failure that made him consign the whole work to destruction? Do we show them what it is that puts Homer above him, and above all other epic poets? Are not these opportunities for object teaching of the highest kind, and opportunities that may not recur again?

Or, to take another phase of the subject, when we read an historical work do we make it something more than a mere exercise in grammar and translation? Of course it must be that first. But need it stop there? What better chance will the young man who is reading Cæsar ever have to learn who the Germans and Gauls really were, and why Cæsar was butchering them by thousands, and what came of it all? When can the Freshman who reads the 21st and 22d books of Livy better learn the real significance of that terrible struggle between the east and the west, that is not yet ended? Or, how can we better teach them the habit of careful criticism, than by showing them these events in their true light, by the help of contemporary and subsequent literature? Yet, are we always careful that the student should know what view Polybius took of the men and events so grapically described by Livy? How often do the students who read the gloomy eloquence of Tacitus and the sultry thunders of Juvenal, have the blackness lighted and brought to its true shade by the cheerful letters of Pliny? How many of our students even know so much as that there be any Polybius or Pliny? Too often we think our duty amply done if we refer them to the mischievous pages of Mommsen, or the fine-spun periods of Merivale, for all historical explanation of the subject.

Another point in which we fail is in teaching the classics as languages that are not merely dead now, but always have been dead; the languages of people who have never had anything more than a dim, historic existence; who fought battles, wrote books, and inhabited cities, and that was all. Why, Robinson Crusoe is a thousand times more real to the schoolboy than any Greek or Roman, nay, than all the Greeks and Romans who ever lived. Must this needs be so? Can we not introduce our students into the houses in which these people lived and show them their books and furniture, their mosaics and frescoes, their magnificient sitting rooms, and their mean, cell-like sleeping apartments? Can we not take them with us to an early call upon Cicero, and follow him down the narrow, noisy street to the busy forum? Can they not accompany him to the midday bath, and to a modest evening banquet? Why may they not have a game of ball with Horace and Mæcenas? Stand in the ring of spectators that watch the young Romans wrestling or hurling the discus? Or trudge to school at cock-crow with the schoolboys of those times, sit on the benches beside them and look on their tablets, or hear them droning over their lessons, or wailing under their floggings?

Why not let them march and camp with an army for twenty four hours? Or take passage on a ship of war and see a naval battle? Or spend a day in a beleagured city? Or go to a Prætor's court, or accompany a Quæstor to his province? Then *acies and agmen, castra and navis, Quæstor and Prætor* will be something more to them than the empty, unmeaning words that they are now. "Understandest thou what thou readest?" is the rarest question asked in the school-room.

Yet if this knowledge were of no particular value in itself, it would make their study of the languages less wearisome and more interesting. But as an essential part of the civilized life of the Greeks and Romans, it is indispensa-

ble to a right estimation of the relative position the 1st and 19th centuries occupy in the world's growth.

This brings me to another failure in our teaching. We are too much inclined to teach the classics and their surroundings as something wholly isolated, having no relation whatever to what preceded or followed, or to modern life and literature. We are, indeed, beginning to let our students know that the Greeks and Romans and English were originally the same people. We show them like words and forms as proof that these great streams were once united. But do we call their attention to another great stream whose course is marked by such stranded straws as our *inch* and *ounce*, the English *d* for penny and £ for pound? Our months and year, no doubt, they recognize, but could they tell where the Roman got his *lustrum* every five years, and why he was always appealing to the setting and rising of the constellations to fix his dates and seasons? Do they know how those men of old settled such modern questions as protection and free-trade, taxation and representation, patronage and civil service?

Within a year I have heard one of the foremost advocates of free-trade and the author of the most popular treatise on Political Economy—a college professor and a college graduate—assert that no Greek or Roman, or barbarian even, had ever hit upon such a monstrous perversion of nature as protection. And he gave no little argumentative weight to the statement. Evidently he had read in his classics only "words, words, words."

Or, to take an illustration from the literary side of the study, are we careful enough to point out the circumstance out of which the work we may be reading grew, its influence on the works that followed it and on modern literature? How many of even our best students have learned anything of the conflicting influences of Greek and Roman models that gave the Æneid its shape, or of the peculiar effect its form has had on modern epic poetry? How many could tell why the Greek Lyric poetry and middle comedy were lost, while the old comedy and tragedy survived, and the effect of this on Modern Lyric and Dramatic poetry?

Or do the glorious nature-myths of Greece unfold their beauty to our students and give them a key to the hidden meaning of the grim Northern Mythology and the quaint fairy tales of childhood? Do they give them glimpses into the mind of man in the far off childhood of the world? Does the nature-worship of Greece and Rome fall into its true place in the great world-wide groping after God, which St. Paul recognizes in his speech at Athens? Or are all these things still the unmeaning monstrosities, the hideous catalogue of unnatural marriages, misbegotten children, and revolting murders that they were to our fathers?

These instances and illustrations, which lack of time has compelled me to put together hastily, have not, I fear, always been most happily chosen out of the perplexing abundance that offers itself, and any one of them by itself may seem of slight consequence. But I am persuaded that their sum is not of slight consequence. The student who has studied the classics in this way will have not merely a splendid mental training and cultivated literary tastes, but will have laid the broadest and best foundation for the successful study of modern languages and literatures, of history and philosophy, of science and art, and will be, in the truest sense of the word, an educated man.

Of course all this will require on our part a thorough familiarity with the best literature of the languages we teach, and with the life of the peoples who spoke them, and no slight acquaintance with modern literature and the con-

stantly progressing work of modern scholarship. Yet I have known men who, though pretending to teach Cæsar, had never even seen a copy of his civil war or read Cicero's letters of that date. I have known men who claimed to teach Cicero's orations and yet had never read Sallust's account of the famous conspiracy, and had never by any happy chance stumbled upon any other orations of Cicero than those in their school editions; and teachers of Homer are not rare who have never read the Iliad through, and have but the vaguest idea what it is all about, or why the world makes such a fuss over it. Even in most of our New England colleges the teaching on all these subjects is extremely meager, unsystematic, and unsatisfactory.

It may be objected tnat all or even a small part of this knowledge would overwhelm the student who has already all he can do to remember forms and words.

Perhaps it would overwhelm him if poured upon him in undigested floods at inopportune times and in uninteresting ways. But can it be imagined that the boy who first hears of the Giants storming Olympus, and is briefly and clearly told what they were and why they were supposed to be the children of the earth and to storm Olympus, the bright abode, and why the sky-Father was supposed to have hurled them down to the unseen world—is it to be imagined, I say, that this boy will have a harder task to keep the story of the Giants clear in his memory than the boy who is simply told the genealogy of those monsters, their wild, unreasonable attempt and its disastrous result, as an unmeaning fancy of the Greek mind? Will the student who has had the Roman army and navy, camp and fortifications set clearly before him by descriptions and illustrations find it harder to read his Cæsar and Livy than the student who stumbles blindly along clinging by mere force of memory to the half-understood words set down in his dictionary?

It may also be objected that this higher instruction will be thrown away upon most of our pupils. That, of course, can only be answered by experience. I have almost invariably found that even those students for whom the author and the language had no charm, would brighten into interest and attention when I described how ships were made and manned and sailed of old, or how a camp was laid out and fortified, and how its tents were pitched and its guards set and relieved, and when next they stumbled into *castra* or *quinqueremis* they found something more than mere words.

Our scientific friends, too, may ask why all this cannot be acquired without the trouble of learning the languages and reading the literature in the original. I will only ask them in turn why chemistry cannot be mastered without the study of its terms and symbols? Why astronomy cannot be thoroughly learned without any knowledge of mathematics? Why, in short, a student cannot master any study by being simply told about it, or by reading one of those pernicious "primers" which have so multiplied of late and seem designed to reduce the students' knowledge to a grade corresponding to their name. If these things are to accomplish their perfect work, they must be studied thoroughly.

I have made an exception of Christianity as the one great element of modern civilization that is not a development of the civilization of Greece and Rome. Yet even Christianity derives no slight advantage from this method of studying the classics. The thoughtful student who has gained a sufficient knowledge of the life and literature of the first century of our era, and compares it with the nineteenth, cannot fail to be overwhelmingly convinced of the blessings that Christianity has brought with it. In literature and art, in philosophy

and law, in everything, in short, that is not directly traceable to Christianity, how near to us the first century stands! but how far away, how unlike in all that touches religion. I think it was John Wesley who exclaimed, on seeing a hardened criminal dragged to execution: "But for the grace of God, there goes John Wesley!" and the thoughtful student feels like exclaiming, "But for the Grace of God this nineteenth century might have been as the first, or worse!"

And as a field for study it is no slight merit that the classical times possess in being so unlike in this respect to our own day. The spiritual and intellectual intensity of the life of to-day, the wide-spread sympathy for all the ills of humanity, to say nothing of the more recent strides man has made in mastering nature's secret forces—these are things that the student does not and cannot appreciate at their true value, till he leaves the nineteenth century and all its life and literature, just as the constant dweller by the great Niagara does not perceive its awe-inspiring voice till he leaves it for a time. And the student who has thus severed himself for a little from his times, comes back with a clearer view of life and its meaning and mission, its greatness and its pettyness, something as the home-bred youth returns from his travels.

It will be a sad day for America, an ominous day for free institutions, when this broadening and liberalizing education is neglected and each man is trained only in the narrow groove in which he intends to move; when each man sees only the little plot of ground on which he stands, only the little cycle of time in which he moves, and fights blindly through life for he knows not what, like a soldier in the dark.

DISCUSSION OF THE PRECEDING PAPER.

W. S. PERRY said:

The very admirable paper to which we have just listened has outlined a field of classical study exceedingly broad and fertile. If the standard presented is beyond the present reach of our schools, it is still an ideal that may well inspire our highest efforts for its realization.

There is culture of a very high order in thus coming into contact with the wonderful civilization of those ancient peoples. But we shall be met with the oft-repeated assertion that this contact and culture may be attained in equal fullness through translations, without the expenditure of so much time and energy in conquering and handling the languages.

If the classics are to retain their hold in the public high school, they must do so, we think, by justifying their utility as disciplinary studies. Can the classics be so taught in the early, or preparatory stage, as to give them coördinate rank with other studies in disciplinary value? To know the Greek so as thereby to come into possession of Greek thought, art, philosophy, and social culture, is of itself a great intellectual attainment and source of power, but how is it with the plodder in Cæsar and Xenophon?

It is generally conceded that the classics, in all stages of their acquisition, cultivate attention, memory, and persistence, but for hard logic we are told to go to the mathematics. Now, what is the truth here? To be specific, every lesson in Latin is a problem that may well challenge the vigorous effort of the student's brain. Probably no language holds its thoughts so tenaciously,

yields it up so reluctantly, as the Latin, and it is no mean mental gymnastics that wrests the truth from its embrace. If this proposition should be doubted, it can readily be established by counting the "ponies" that are stabled around the precincts of our colleges and classical schools. Normally, the tyro comes to the task of unraveling a Latin sentence with some hint of the truth lurking within by the few familiar forms of words it contains. He adopts a theory as to what that truth is. Calling to his aid the principles of the language he has learned, with lexicon at his elbow, and with faculties all alert, he proceeds to prove his theory; but he soon reaches a *reductio ad absurdum*. He retreats, forms a new theory, excludes intruding errors, and with more cautious but severer judgment, brings out the sought-for-truth. Here reason and logic are brought into requisition and severely tasked, not in the same form as in geometry, but perhaps with quite as much discipline of the faculties. In geometry the truth is given at the outset in the plainest possible terms, and the task is to follow out, step by step, a series of obvious conclusions to the final proof. Of these two classes of mental effort, doubtless the Latin comes the nearer to original thinking—perhaps nearer than is found in the processes of any other study. It moreover employs the same faculties that are concerned in the affairs of life, or that carry the mind to its highest achievements. If the classics be so taught as to call into vigorous exercise those powers of mind that are used in discovering and apprehending truth, there will result a mental grasp and discernment peculiarly suited to the problems of human experience.

But, it must be admitted, there is much fruitless study of the classics. What, with unskillful teaching, crowded courses of study, and "new education" ideas, they are in danger of being greatly emasculated of their effectiveness in training the mind. Moreover, if they cannot be well and thoroughly done in our schools, they would better not be done at all. Thoroughness here is especially necessary to any return. It should be understood at the outset that the classics require time, and energetic brain-work; they permit no undue hurry, no impatience. Particularly must the foundation be strongly laid. The method of doing the grammar is likely to be decisive of all that shall follow.

In the elementary work, the topic method should be mainly followed. A single case, or verb form, or a single rule of syntax, carefully studied, amply illustrated, and immediately applied, will thus be permanently fixed in the understanding. Every form must be perfectly familiar, easily written, and must convey its appropriate meaning. This will call for painstaking toil and much repetition.

There should be like precision in studying the literature. It should begin with sentential analysis, including the same classification into simple, complex, and compound sentences; adjective, adverbial, and noun clauses, and other modifying elements, as in English grammar.

Again, there should be a constant comparison of idioms; for instance, the Latin subjunctive with the English infinitive; the ablative absolute with clauses of time, cause, manner, etc.; inflection forms, with auxiliary verbs and prepositions. Such work as this will lead into the very fruitful domain of comparative grammar, which should be explored as far as time and circumstances will permit. The forms and relations of words should receive thoughtful attention; especially should all hard constructions be completely disentangled. Deviations of form are not important, and may be pursued *ad libitum*.

The benefits of applying Latin syntax are often lost from superficial treat-

ment. The Latin language is not a jumble of stems, inflections, particles, and arbitrary rules of syntax to be simply memorized. It is thought and history crystalized into a systematic organism; a body of facts arranged and bound together by well-defined principles and correlated laws, as scientific in constitution as astronomy or chemistry. It should be studied as such. The form of a word, or nature of a construction, is a form of thought which is to be discovered. The old methods of applying rules of syntax were often mechanical and unmeaning. For instance, to say that "nouns denoting cause, manner, means, or instrument, are put in the ablative," is certainly not conducive of critical thinking, for "cause and "means" are widely separated in nature, and should be carefully discriminated. And even when a form has been traced to the ablative of "cause" or "means," the precise subordinate thought to be conveyed must be sought until found. We must lead the learner down to the mental logic of each form and rule if we would whet the mind to keen and accurate discriminations. To compass such ends most effectually it is well to limit the syntax exercises of a class (say in Cicero or Virgil) for a month or term, mainly to nouns, at times to a single case of the noun, then again to the verb, or some special function of the verb. This exhaustive, scientific method of training the mental faculties is the only kind that can fairly be regarded remunerative. Learners should be kept busy investigating and applying principles until the practice becomes a habit.

Language studies have long been recognized as aids to expression, but too often in a sense that deprives them of all value. A study of language is something more than a study of empty words; it is the study of humanity; its history is the history of the race, and he who commands it may well be said to command the ideas and conceptions that have guided the march of nations, and ruled the world.

In the matter of translating the old literary masters, there is too much blundering and smattering in the class-room to secure the best results; too much stammering out incoherent ideas under the guise of translation; too much content with half-knowledge, or stopping just short of success. Now, after due attention to analysis, forms, and syntax, there must be a thorough study of the whole body of the text considered, as a vehicle for the conveyance of thought. It must be made so familiar as to convey its truth with the clearness and certainty of the student's vernacular. It is the last work here that tells, and crowns the toiler.

Translation is a double process. First, there is the extraction of the thought from its classic mold, which having been accurately done, the task becomes an exercise in English composition. Both of these operations should be kept distinct before the mind, to the end that both be thoroughly done.

Incidentally, it may well be noted that this mastering to fullness of appreciation is essential to a love of the classics, as it also is to a competency of estimating the value of the classics in a scheme of education. It is certainly the only way to come into immediate contact with classic life, thought, and culture. Such a method may circumscribe the quantity and range of classic reading, but let it be borne in mind that it will be found more profitable to actually enter Rome by a single street than to dally long and far around the suburbs of the city.

CHAS. H. CHASE, of Leslie, said:

In opposing the sentiments of this paper I am aware that I am placing myself in opposition to many of our most prominent educators. I must, how-

ever, express this opinion, that the time is past when classical studies are to be made the basis of all education. Not that I would for a moment disparage classical studies in their proper place, but that they must take rank with technical studies—studies to be pursued as preparatory to particular pursuits or professions.

The principal reason assigned of making the classics a basis of all education is their high disciplinary value.

That they have a certain disciplinary power, I do not deny; but that they discipline the mind in all directions, as has been asserted, I cannot believe.

Let me ask how many classical students carry out the principles of mathematics to the highest conclusions of modern science? How many can apply the principles of the differential calculus to the determination of the particular properties of the sphere—that it is the only body which has the same attraction for any point without it, that it would have were we to suppose the whole mass to be at the center of magnitude; that, in the case of a hollow sphere, any point whatever within is attracted equally in all directions? How many classical students can apply the calculus to the determination of the attraction of a cylinder, of infinite length and definite diameter, for the center of one base; the attraction of an infinitely extended solid, of definite thickness, for a point in one surface; of the cone for a point in its base or at its apex?

How many can determine the solid of greatest attraction for a single point, and how that attraction compares with that of a sphere for a point at its surface?

How many classical students follow up the investigation of chemistry, organic and inorganic, and from observed phenomena arrive at rational and graphic formulæ, which indicate the most probable relation of the atoms to each other in the molecule? How many in the study of physics determine the relation of specific heat to the atomic weights of the elements; or, from the kinetic theory of gases, determine the mean path of a molecule?

And so we may pass through all mathematical and natural science lines of investigation, any one of which is extensive enough for a life work. We find, too, that each gives a kind of discipline which cannot be attained through classical studies merely.

Since we cannot follow all, we must choose one of these lines to the exclusion of the classics, or the classics to the exclusion of all else; otherwise we cannot even reach the boundaries of the known.

It is further urged that classical studies furnish the best means of strengthening the memory.

To this I would say, that they strengthen the capacity of the memory at the expense of its retentiveness.

The retentiveness of the memory depends upon the activity of the mind in receiving an impression. A fatal accident occurring within our sight is impressed so firmly upon our minds that it is never forgotten, and simply because the mind is aroused to its utmost activity. So, following up a mathematical investigation in which we are, in a certain sense, creators of the thought, performing a physical or chemical experiment, bringing the phenomena vividly before our eyes, or examining minutely an object of natural history, must impress the mind far more forcibly than a word, the mere sign of an idea. The memory cultivated by classical studies is one which can retain pages to-day, but which loses it all to-morrow. On the other hand mathematical and scientific studies properly pursued impress facts and truths, the greater portion of which can never be erased.

A certain class of persons have an intense love of the past—find a greater interest in the past than in the present. The professions of some, too, seem to demand classical studies. To such I would say, study the classics by all means. But for those who live in and for the present, the all absorbing present, classical studies must give place to those more directly pertaining to modern thought and life.

THE STUDY OF THE ENGLISH LANGUAGE AND LITERATURE AS A MEANS OF MENTAL CULTURE.

BY LEROY HALSEY.

It would seem that there is not need of extended argument to establish the proposition that for the English-speaking person the systematic, long-continued, exhaustive study of the English language and literature is of very great value, of prime importance, of absolute necessity, in any course aiming at the highest possible mental culture. Few teachers are prepared to deny that work in the language we use constantly is the most important provided for in our school and college courses, and that it should receive the major part of our time and energy in every stage of intellectual growth. Such is the theory; but does the practice correspond? So far as I am qualified to judge in most of our schools English is, taking into consideration its intrinsic and relative value, the most neglected of all studies. If I am right in my hypothesis that theoretically teachers and school officials admit what practically they do not put into operation, it would seem that something should be done to bring about a change in this regard. One of the most encouraging indications in educational matters is the marked attention that of late years has been and still is devoted to the discussion of methods of English work, and the consequent impulse to adequate English study that has manifested itself in our most advanced schools. But it is hard to break away from long-established custom, and there is room for large improvement in our best institutions, while many schools are following antiquated methods or no methods. In very few cases is there the systematic, thorough study of the English language and literature that alone will give satisfactory results, corresponding to those received from other lines of work. In view of these conditions it is eminently fitting that the teachers of Michigan should turn their attention to the discussion of the value and the modes of English work in all courses of study.

No scheme of intellectual culture can be said to be creditable or worthy that fails to provide for protracted and thorough language training, in the fields of etymology, of syntax, of rhetoric, of literature. It is not claimed that language should be pursued to the exclusion of other means of mental discipline, but that it should receive more attention than any other line of study, inasmuch as it is the most essential, the most beneficial, the most practical department of mental work. Each study has its peculiar province, and each field of human knowledge should be cultivated to some extent by the one who is working for the broadest culture. Yet the field of language study is broader and more fertile and more prolific in bounteous harvests for the

faithful cultivator than any other, and consequently he is wisest who works in it most frequently.

It is by the use of words that we acquire all our knowledge, express all our wishes, perform all our work. These wonderful instruments are constantly at our service, obeying our wills, bringing to us all our enjoyment and all our profit. The intelligent workman, the master mechanic, understands in its finest details the tool, the machine he uses. Should we not profit by his example and learn, as fully as we may be able, the force of these delicate and valuable tools of thought? The history of man, past, present, and future, is coincident with and conditioned on the history of words. Hence, we can see that language is that which enters more largely than anything, than all else into our individual interests and work.

As a means of mental discipline, language develops faculties of mind that cannot so well be brought out by any other study. The examination of word forms and their marshalling in sentences cultivates the critical faculty. All successful linguistic study, in English or in a foreign tongue, depends upon and cannot be separated from critical investigation, close comparison, nice observation of slight distinctions. In the analysis of words the intellectual faculties are quickened, sharpened, invigorated, giving to the mind a constantly developing power of observing delicate differences, a fineness of discrimination, and accuracy of grasp that has a value displaying itself in everything with which its possessor comes in contact. The power thus acquired is strengthened and amplified by analytical methods brought to bear upon the sentence, the paragraph, the prose or poetic masterpiece. The intellectual acumen and reliability springing from the critical and close observation of slight variations and modifications of forms and constructions, necessary to all worthy language study, have a value that cannot be exaggerated. Not alone the analytical, but also the synthetical methods must be brought into play. The worker in language must be a builder as well as a critic and an analyzer. He must gain the power to arrange the materials to which he has obtained access in his analytical work to use them in word construction, in sentence construction, in theme construction. The ability to estimate the value and force of the materials is of no great practical value unless there is present the constructive faculty. This faculty it is the aim of all proper linguistic study to develop. As the analysis accomplishes its work in quickening and sharpening the mental activities, so the synthesis serves its purpose in bringing the whole mental machinery into the lines of practical work, thus broadening the intellectual horizon and giving enthusiasm and zest in the mental pursuit. Analysis and synthesis must go hand in hand as coadjutors in language study, each in its own field cultivating the mind.

Not only is the mind developed by the quickening power of etymological and syntactical study, theoretical and practical, but also by the contact with great minds in the literature is there a constant, all-elevating, and all-developing force exerted upon the intellectual man. No one at the present day thinks of separating the study of language from the study of literature. Language work is but a preparation for work in literature, or, more properly, the two should be cultivated together, the language being studied constantly in the best literature. He who has acquired the power of reading a literature, whether it be of Greece or Rome or France or Germany or England, has gained the right of entrance into the society, the intimate companionship of the greatest men intellectually. In history we read the narrator's account of how great men appeared and acted and spoke. Of their thoughts we learn merely

from their acts. Even if the historian is eminently fitted for his task, the report comes at second hand, giving what may be a false interpretation, and at best is but a partial and imperfect view of the true, the inner life of the great actor. In literature we see the workings of master intellects and imaginations, we are made acquainted with the highest thoughts of the ages, not through a second person, but as they presented themselves to the minds and entered into the very being of the masters of their day, those who exerted the most lasting influence. No one questions the value of the study of history. If, as we are prepared to admit, the thinkers are the men who have effected the world's work, who have, by their own action and their guidance of the action of others, wrought out great destinies and "shaped the whisper of the throne;" if a man's thoughts, finding expression in books as well as in action, especially his highest thoughts, are of more worth than action without intellectual power, should we not regard the study of literature—the work of the great minds—as having the higher value. Yet our school courses of study give the precedence to history. One who puts himself in the way of gaining a familiarity with the highest expression of *the beauty, the truth, the wisdom* of a nation, as it appears in its literature, is certainly adopting the course that is destined to bring the largest return in mental advancement. No man can commune with the intellectually great and noble without showing in his own intellectual action the powerful impulse of mind acting upon mind.

The study of literature disciplines the æsthetical, as well as the intellectual side of man; and as the development of the taste refines and elevates the whole being, its reflex action upon the intellect must not be overlooked. The artistic appeals to us in literature as fully and as powerfully as it does on the canvas, in the marble, in the symphony, and its influence, wholesome and beneficial, is as marked in one case as in the other. Form, proportion, harmonious adjustment are so intimately associated with the best in prose and poetry, as well as in art, that in estimating the influence of literature we must give to them large place. Literature may, in its higher forms, not inappropriately be classed with the fine arts. As the study of the great masters of music, or painting, or sculpture gradually develops a correct and true taste in the art, so the careful study of artistic expression and arrangement of thought will bring out a taste for the highest prose and poetry. Furthermore, since in good literature we find the noblest, purest, truest thoughts of the race, and since that which is noble, and pure, and true in thought must appeal to the æsthetic in man, there is in the best poetry and prose, aside from its expression, an artistic influence.

The study of literature—more especially of poetry, which, for this reason alone, should be read largely by every one—is of incalculable value in enlarging and quickening the imaginative faculties, and, since these faculties are the highest in man, there is the consequent cultivation and elevation of the whole man. I can not do better here than cite from the recent address of James Russell Lowell at the unveiling of the Fielding statue: "Not only are the most vivid sensations of which our moral and intellectual nature is capable received through the imagination, but that mysterious faculty, in its loftiest and purest exercise, rescues us from our narrow personality, and lifts us up to regions of serener scope and more ideal satisfaction. It cheats us with a semblance of creative power that seems almost divine, and exhilarates us by a momentary enlargement of the boundaries of our conscious being, as if we had been brought into relationship with elemental forces. Well may we value this incomparable gift; well may we delight to honor the men who were its

depositaries and instruments." He who enters into the world of Shakespeare's imagination, by that action pushes back his mental horizon many leagues and breathes a fresher and purer atmosphere.

The study of literature is of pre-eminent value for its moral influence. Most of the masterpieces of prose and poetry are pervaded by a high moral spirit, which influences the mind of the reader, bringing about a moral culture contemporaneous and coëxtensive with the intellectual, the artistic, and the imaginative training. The value of this moral regimen accompanying the study of the best in literature should not be overlooked, not only by reason of its intrinsic merit, but also because of its indirect effect in disciplining the intellect. Moral progress must be accompanied by intellectual advancement, and the two should be considered in connection with each other. The study of good literature in the great majority of cases develops the moral sense more rapidly and more truly than it can by any other means be educated. Only a small minority of readers, I take it, fail to develop the ideas of right and wrong by the perusal of the literary masterpieces, and we may say without injustice that even these fail not by reason of an absence of the distinction between right and wrong in literature, but in the face and in spite of the warnings and suggestions and teachings of literary masterpieces. I am aware that some of the great writers to a large extent have lacked the moral sense, but the number of such is extremely small in comparison with the whole number of authors of high standing. The mass of literature is characterized by a high moral tone, and most especially is this true in the case of our English literature, which throughout its history has developed to a marked degree moral ideas.

It may be well to note here the theory that was advanced by a great writer of a past generation, which of late has been rediscussed, that the true literary artist has nothing to do with ethics, but must concern himself solely with æsthetics. I wish to enter a dissent from this view, although it has received the sanction of great names. It is true that the literary artist will fail in his work if he moralizes formally and didactically; yet, as the lover of the good, the true, and the beautiful, he must put into his writings directly or indirectly those moral purposes which alone render life good and true, and consequently beautiful. The poet without the moral tone falls below his otherwise attainable level. He may rise higher than his contemporaries by virtue of other excellencies, but he cannot rise so high as he would with that which alone gives true beauty to life and consequently to the expression of life in literature. Is this want not the chief defect of the so-called Pre-Raphaelite poets of England to-day? Their refined paganism or etherealized sensualism, however beautiful it may be externally, reveals the dreary void behind, due to the absence of what alone gives lasting beauty to life and literature. We rise from reading their pages with the sad sense that here is superb poetry, artistic, melodious, with that alone absent which is absolutely essential to place it on the highest level—moral tone. How much better is the artistic finish inspired by grand morality of "In Memoriam" or the "Idyls of the King!" It may be stated that this has no intimate connection with the theme under discussion. I claim that it is closely connected with our subject and must be considered, for we can not separate the moral from the intellectual culture due to literary study; the two must be treated in connection; the moral training aids in the intellectual discipline, and literature should be studied for its moral impulse.

Whatever may be said as to the value of language study in general, may be affirmed with increased emphasis when we come to the consideration of the

worth of our mother tongue and its literature as a means of mental training Here let it be said that no intelligent person favors the perusal of English literature to the exclusion of other languages and literatures from our courses of liberal study. The liberally educated man must be more or less familiar with other languages than his own, as many as time and circumstances will allow. All disputes concerning the relative value of ancient and modern languages resolve themselves into discussions as to which are the more beneficial, the more valuable, for a man who has time for only part of them. However the dispute between the classicists and modernists may result, if it ever arrives at settlement, no one will deny that one's own language is the most valuable, the most beneficial, and should therefore receive more of the student's time than any other. If there is opportunity to master but one language, that language for Anglo-Saxons should be the English. Far better is it to know English well, than to have some acquaintance with Greek, or German, or Italian, and an imperfect knowledge of English. Let us consider for a few moments the reasons for the very great value of the English language as a means of intellectual discipline, supplementing what has already been said as to language work in general.

The English language is our own tongue. We use it daily, hourly, every minute—for we think in English. It accompanies us in all our work, in all the relations of life. It is our sole medium of daily exchange and reception of thought. We cannot separate ourselves from it. Recognizing its immense practical value and service, using it constantly, we should not be satisfied with an imperfect knowledge, but should aim to use it correctly. It may be said that a thorough and systematic study of the language and literature is of no practical value to a business man. Certainly it is of great worth to the business man as well as to the scholar. Aside from its influence in turning one's attention from the narrow grooves of trade into fields of interesting research, it brings to a tradesman, a merchant, the same discipline that it extends to the professional man, a discipline that is just what the man of affairs needs to grasp understandingly and with foresight any matter of trade that may come to his hands. The study of English language and literature will broaden the understanding as nothing else will, enlarge the activities, excite the sensibilities, so that one is better prepared for taking up any work than he would be without such study. Thus we see that English study is practically desirable for the merchant, for every one, and the natural inference would be that each student in our schools, no matter what occupation he may have in view, should be put in the way of getting this full training. Our boys and girls should be so educated that they will be brought under the guiding and correcting influences of good books. Thus will be acquired a taste for and interest in literature that will go with them through life, making them not only better citizens but better and wiser workers in their appropriate fields, and better men and women.

As English is the study that is applied constantly and practically, as it enters so intimately into all the relations, all the interests of life, it is the one that enlists our attention most largely. The most practical study is the most interesting. The knowledge that there will and must be constant use will render one alert, attentive, quick to receive, ready in understanding, tenacious of facts and principles, strong in mental grasp, comprehensive in view, eager in pursuit. Other things being equal the most ample intellectual culture will be derived from that which is near to our every-day lives, that which is concrete. The awakening of the enthusiasm alone is sufficient to guarantee the

truth of this statement. The enthusiasm will be awakened if the proper methods are followed to introduce our public school pupils to the best prose and poetry. Some who are prepared to admit the worth of language study may be inclined to think that the argument will not hold good for literature, at least as regards practical use. In addition to what has been advanced, it may be well to bear in mind that our English writers have concerned themselves with all these questions of practical life that we, with our limited range of view, are too apt to imagine are confined to our time and locality. Human life is the same essentially in all ages, and if we can get for the simple reading the solutions of the problems that are vexing us, solutions that have been made by great minds, and that hold with slight modifications for our own conditions,—why should we not accept the gift and do all we can to put others in the way of receiving a like benefaction?

Our mother tongue is a strong and rich language, full in its vocabulary, comprehensive in its range, exact in its discriminations, precise in its idioms. It is vigorous in its essentials, polished in its externals. Deriving strength from the Anglo-Saxon, it has retained its early vigor throughout its history, breathing in its fundamental forms the grand old spirit of independence, of self-reliance, of fire, of energy, of love of home and country, that have found noble expression in the work of our northern race throughout the world. The large number of monosyllabic words in our speech to-day bears witness to the simplicity and directness of our progenitors, revealing itself in elementary forms that have survived. The skeleton, the essential part, the strength of the language is Saxon, including those words that express the simple, more necessary relations of life and home,—words that are developed first, noting earlier objects and thoughts. The introduction of romance elements has reduced the original crudeness. There has been a loss in vigor, but the gain in polish, in elegance, in comprehensiveness, more than compensates for it. A happy mean between the two has given the manly yet flexible tongue we speak. Combining, as it does, the elements of two great languages, it has an exhaustlessly rich vocabulary, and has the power of drawing indefinitely upon the ancient languages for new words which may readily be assimilated. The strength and elegance, the directness and flexibility, the fire and assimilative power of the English, render it remarkably useful for mental culture.

The precision necessary to the proper use of phrases and idioms, gives to the English high value for intellectual discipline. It is not my purpose to enter fully into the discussion of the relative value of inflected and uninflected languages. Other things being equal, the inflected language is regarded as of higher disciplinary value than the uninflected, since it is more systematic and consequently cultivates precision and accuracy. Yet the training received from and the precision developed by a close observation of phrase and idiom distinctions are not much, if at all, inferior to those due to form modifications. Does not the ability to use accurately our English idiomatic expressions and almost synonomous words imply as high and as valuable a mental culture as is that springing from the pursuit of an inflected language? The departure of language from the inflected to the uninflected stage may be interpreted as indicating that the more discriminating language is the uninflected. The more discriminating language is unquestionably the more valuable in a disciplinary way. The English, with its wide range of possible phrase and idiom, constructions and modifications, cultivates thought, comparison, discrimination, original work in the use of words and their arrangement, far more than does a more mechanical language structure. The one

who uses an inflected language must be exact, but he may exhibit precision mechanically and blindly; the writer and speaker of an uninflected language is precise, consciously, intelligently, creatively. However, I do not rest my case on this point. Enough has been said to indicate that the English language is of such a nature in its origin and history as to be of prime value in mental culture, in broadening the comprehension and refining the sensibilities.

The English language is the speech of the great God-fearing, liberty-loving, home-loving, generous, courageous, manly Saxon race. It has been identified with the development of ideas of duty, of truth, of self-reliance, of independence, of pure home-life throughout a grand history of a thousand years. It has been the tongue of those who have fought and won in the noblest struggle for civil and religious liberty the world has seen. Such ideas as these, revealing themselves in the warp and woof of the language and literature, giving the very soul and spirit of English speech and thought, are enough in themselves, by reason of their exhilarating, their inspiring, their impelling force, as they appear in literature, to establish the value of the English as a highly developing mental pursuit. Whatever represents man at his highest and best, acts as a spur to lofty thinking and true living. As the language of the true religion, sending the message of Christianity over the surface of the globe, spreading abroad the knowledge of the God of Nations, it reaches in its devotional and religious phases, so far as is possible in man, toward the infinite and the eternal; and thus it develops the noblest capacities in every one that familiarizes himself with it. As the language of constitutional government, our speech finds expression for all that enters into the higher statesmanship and patriotism, and in consequence enlarges the mind under the pure influence and in the direction of good government and true citizenship. As the tongue of the great colonizing and commercial people of modern times, it has been pervaded by the spirit and has introduced the expressions of business, of practical affairs, of every-day life. The language has been identified in a marked way with the development of science, especially in the present century.

The English language is more widely spoken than any other at the present time. English colonization has carried it to every quarter of the globe; and, however we may regard the justice of British conquest, we are forced to admit that English settlement, and English enterprise, and English speech and thought have worked out a civilization, an advancement otherwise unattainable. Wherever the English speech has found an abiding place, there has been true enlightenment and progress. The influence of this wide diffusion upon the English language has been great. Representing the interests of widely different, ethnically varying, climatically and longitudinally separated peoples, it necessarily introduces their thoughts into its own structure, and thus represents a broader range of ideas than would be possible in a less widely spoken tongue. This breadth of view aids in enlarging the mental capacity of the English student.

The English language is chiefly valuable in intellectual discipline by reason of its noble literature, a literature that has existed and grown for more than a thousand years. Every department of thought and research is represented in its ample range. Every phase of life and action finds fitting expression in its pages. Every triumph of the intellect, every aspiration of the heart, every discovery of science, every truth of revelation may here be found. In it every Anglo-Saxon may with pardonable pride glory, and every Anglo-Saxon should be put in the way of glorying intelligently and discriminatingly.

Hence it is the part of wisdom to guide our school pupils into these fields so well worth cultivating. If the proper direction is given in the school, we need have no fear for the outcome. When the attention has become enlisted in English literature, there is no danger that one will turn back. Can any one for a moment question the value intellectually, practically, on every score and from every stand-point, of becoming familiar with the richest treasures, in every department, of the most elevated minds of a nation whose literature is, all things considered, the grandest the world has seen? The spring-time beauty and out-of-door freshness of Chaucer, the exquisite narration of Spenser, the imagination and the humanity of the master Shakespeare, the sonorous and stately grandeur of Milton, the natural vigor of Burns, the airy flight of Shelley, the interpretation of nature and the moral purity of Wordsworth, the artistic perfection of Tennyson,—have not these had effect in moulding great men, and will they not continue to develop in the reader all that goes to make up the highest mental culture? The ponderous strength of Hooker and Milton, the clear, vigorous touch of Bacon, the gracefulness of Addison, the eloquence of Burke, the refined beauty of DeQuincey, the calm and simple force of Hawthorne, are at hand ready to serve us, to serve our public-school pupils, whenever we are ready to make use of their incalculably valuable aid in training of mind and heart. There seems to be a lamentable and inexplicable indifference to the great privilege extended freely to all of becoming acquainted with these great intellects, whose thoughts are confessedly of more worth in every way than the petty questions that absorb our attention and consume our time. Yet, if one of these great men should rise from his grave and appear among us, what a lionizing there would be! Many who never read his works, in which he appears at his best, would delight to do honor to the man, appearing, as he would, in a lower capacity. The neglect of the majority of intelligent persons to read the English masterpieces of thought and style is strange. This neglect may be remedied in another generation, if each teacher will do his duty in regard to this much neglected study.

That a line of mental work may be highly profitable, it is necessary that it should be systematic, thorough, long-continued, and exhaustive. Especially is this true as regards all language study, for in the necessities of the case there must be a comparatively slow advance from the first principles to the finer points of etymology and syntax, and through these to the literature in its simpler forms, then to the higher prose and poetry. Consequently it is necessary that a large amount of time throughout an extended period should be devoted to the study, if one is to reap adequate results. As the work is cumulative in its nature, each acquisition preparing the way for a larger and fuller accession of knowledge, the work must be thoroughly finished, systematically developed. Since one should not be content with partial knowledge when there is an opportunity for fuller acquirement, the study should be as exhaustive as circumstances will allow. He who would master a language—and we as teachers should aim at mastery and strive to direct our pupils in the same channel—would embrace in his course etymology, syntax, comparative grammar, rhetoric, elocution, and literature, with practical application in all kinds of manuscript work. All these fall within the sphere of him who—not necessarily a specialist—desires to study thoroughly the English language. The study of philology, of comparative grammar, and of literature should not be overlooked.

The study of English should be made to include the consideration of words, of sentences, of paragraphs, of prose and poetic masterpieces, in all their

variations and modifications. Words should be treated as regards phonology and pronunciation; orthography; derivation and formation studied by synthesis and analysis; history, in other languages as well as in English, with a study of changes in form and signification, and their reasons, and a consideration of the development of partly synonomous words and their distinctions; elegance, clearness and force; strength, beauty, and appropriateness; arrangement in sentences. The study of sentences would cover their grammatical structure, ascertained by analytical and synthetical methods; their formation from words, and rhetorical effect as concerns clearness, elegance, force, in themselves and grouped in paragraphs. This would lead to an examination of the proper development of thought as regards logical coherence and climax, with an application of all rhetorical tests. Some drill in elocution would necessarily be introduced in order that there might be a fitting reproduction of the masterpieces studied, as well as a good presentation of original essays. Furthermore, what has been noted would be supplemented by the constant and critical study, grammatically and rhetorically, of masterpieces in each department of literature. Each of the great masterpieces and many of the minor literary works would be studied for the style, diction, imagery; for the thought considered in itself, intellectually, critically, apart from appeals to the conscience, from heart impulses and from action; finally, for the moral ideas and appeals, giving incentives to action, to earnest endeavor and noble living. In order that the literature may be understood there should be constant reference to the development of the national life and spirit as recorded in history and to the lives of authors and their contemporaries. At every stage in the study there must be constant application of theory in practical manuscript work of all kinds. This is absolutely essential to satisfactory work. Moreover, in order that there may be a broad, comprehensive view, the examination of comparative grammar etymologically, syntactically, rhetorically, is advisable, through familiarity with different languages, if that is possible, otherwise at second hand. But, it may be objected, this would require the work of a life-time. Yes, and English should be a life-long study. No English-speaking person should look at it in any other light. There should be constant attention to literature, comprehensive attention, critical attention, co-extensive with one's life. The only way to bring about this much to be desired result is to lay well the foundation of English study in the lower schools, and to enlist the attention of our students in each one of the departments of English work indicated, to give a trend to the mind that will remain throughout life, to the incalculable pleasure and profit of the coming generation of men and women. This work, including the reading of masterpieces, should be carried on systematically and constantly in all except the lowest grades, and continued to the day of graduation. If the proper amount of time and attention is devoted to English language and literature in our public schools, much can be accomplished in each of the above-mentioned lines of study; at any rate, a good working basis for life-work in literature will be laid, and the impulse to that work will be given. Is this done now?

As will have been noticed the above outlined scheme of work in English would recommend the acquaintance with other languages than the mother tongue. The study of comparative grammar and of comparative modes of national thought and style is of the highest benefit in broadening the mind. It is advisable to study Greek and Latin, if for no other reason, because of their practical bearing on English. We hear much in these days of the prac-

tical value of German and French and science, and the worthlessness of Greek and Latin except as disciplinary studies. In fact, late discussion of the relative merits of ancient and modern languages has been carried on largely on this low plane of practical, every-day application. Looking at the question from this, the chosen point of view of the modernist, do we not find that Greek and Latin are more constantly applied each day, everywhere, than is German or French or science? How many times a day does the ordinary business or professional man have occasion to use his German or French or geology or zoölogy even if he be a thorough student in one of these departments of knowledge? Not often is there opportunity for such use. Now, no one can talk for five minutes without using a large number of Latin derivates, which will not be fully understood—whose signification will not be accurately grasped—without the knowledge of Latin. Inasmuch as the nomenclature of science is of Greek origin, the scientific man is unable to present his theme unless he uses Greek derivatives. The full beauty and significance of such words is lost without acquaintance with the speech from which they are derived. The classical student has here a very great advantage over his non-classical brother. If by practical studies we mean those in constant, daily use, the Latin and Greek are more practical than German or French or any science. Here, it is to be noticed, the argument for Greek and Latin is not based upon the higher ground of true comparison, which considers the indirect as well as the direct value, but is presented on the confessedly lower consideration of practical, daily application of the study pursued. This discussion is closely connected with my theme, for I hold that the most satisfactory study of English is conditioned on an acquaintance with the language forms and modes of thought that have had largest influence on and most constant connection with the words and writings of our own speech. No one who is at all familiar with English literature will for a moment deny the constant, vast, and all-pervading influence of Greek and Latin upon English literature, not only as regards language forms, but also in respect to thought and habit of mind. The indebtedness of the English language to the Latin and Greek is everywhere apparent, and no less marked is the indebtedness of English authors to ancient classical writers. These remarks spring from the consciousness that Greek and Latin would better be studied for their help to the student of English given directly. The remarkable disciplinary power of the Greek and Latin, and in consequence their value in quickening the perceptions, mental activities, and tastes of the student, thus bringing indirectly their aid to bear upon the study of English, are here passed undeveloped.

The study of French or German or Spanish or any other language is of value to the student of English. A comparison of our own language with any other will give new light upon and a fuller understanding of English, not only in structure, but also in thought. The German is of special worth, inasmuch as it is closely related to the English. Allied languages act as auxiliaries to each other, and the German has so much in common with our own speech, in its fundamental forms, in its spirit, in its history, that its assistance in the study of English is very noticeable. More especially is this the case when we go back to the early English, the Anglo-Saxon, which indicates everywhere its Teutonic origin. Moreover, the German thought has had more influence on English than has that of any other existing nation. However, it is only within the present century that this influence has been exerted, and it has only to a slight extent affected the highest English literature.

As the German is a valuable aid for its connection with the English, and

the Greek and Latin are of high worth for their influence on our language and literature, so finding their appropriate places in our course, it would seem that there should be room in our schedule of study for the grand old language of our progenitors—the Anglo-Saxon. Since it has given the essential part, the skeleton, the frame work to our speech, the abiding spirit in language and literature, the permanent and most necessary elements, it should enter into the course of study of every one that desires full knowledge of the language he speaks. Without a knowledge of the Saxon roots and words, one cannot understand fully the speech he uses, for the Saxon elements are the ones most constantly used. Furthermore, the reading of the strong, hearty, fiery, honest utterances of manly men, as they appear in Beowulf and other Anglo-Saxon writings, acts as a mental tonic, bracing and invigorating as the sea air so beloved by our forefathers. The very spirit of liberty and independence, of loyalty to man and truth is found here playing with full tones in a noble instrument. Even were the Anglo-Saxon not so essentially connected with the speech we use, it would well repay one to get something of its influence. The true lover of English literature will not rest until he has gone back to the primal springs of our literature in the Anglo-Saxon. Only of late years has attention been called to this extremely valuable study. Now provision has been made in most of our colleges for the reading of Anglo-Saxon literature. Although the formal study of Anglo-Saxon in our lower schools is impracticable, yet something can and should be done to call the attention of boys and girls to the elements that have given to our speech its abiding qualities. A little work here and there in the way of hint and suggestion will accomplish a great deal. I trust the time is not far distant when Anglo-Saxon shall receive some attention from every student in our high school.

If English is the most important study in our school course, if it has a more practical bearing than any other line of work, if it deserves more time and energy than aught else, if it brings the largest returns in mental culture and profitable enjoyment, why does it not receive due recognition? Surely no one can maintain that the English work in our schools, as a rule, is at all satisfactory. The institutions in which excellent results are arrived at are the rare exceptions. In most cases the English study is uncertain and desultory. It may be urged that English is taught indirectly in connection with other school studies, and consequently there is no need of constant and formal class work. In reply it may be stated that any work, to be successful, must be regular, and that intermittent and indirect drill in English is not destined to bring out good results for young students. Constant and hard application is as essential in English as it is in any other line of study. Moreover, in most cases insufficient attention is given to manuscript work, while the critical examination of English masterpieces is not attempted. Yet both of these exercises are necessary in study that is to be highly profitable. How much can be accomplished in the vast field of English literature when the energy of the student is directed into this channel for but one term, or at best two terms, in the senior high school year? Yet this is all the time that can be spared for it, as our high school courses are arranged. To make the matter worse, our teachers of literature almost invariably follow immemorial custom in attempting to teach the history of literature rather than literature itself. The effort is made to force into the minds of pupils the dry skeletons of the lives of men of letters and the meaningless lists of their works—dreary and useless rubbish, unless accompanied by the reading of the prose and poetry of the authors, detested by the pupil and gladly forgotten as soon as examination

has passed. Is this the way to teach what is in itself unquestionably the most fascinating of all studies? What we want is English literature, not the bare history of English literature—the soul and spirit, not the dry anatomy. Far better is it to study faithfully a single play of Shakespeare than to become familiar with long lists of dates and titles. The former will leave lasting impressions of beauty of thought and expression, the latter will soon slip from the memory. Moreover, to only a part of our high school seniors is the privilege of studying the history of English literature extended. Students in some of the courses of study are not allowed even the opportunity of pursuing the study of English literature for the one term or two terms. However, as methods prevail, perhaps not much is lost by them.

In very few schools is the study of English prose and poetry so exhaustive as is the drill in the great works of other languages. In countless cases the graduates have a good degree of familiarity with Virgil's Æneid or some masterpiece of German or French literature, while they have no acquaintance with Shakespeare. Is this creditable? Why are foreign works, ancient and modern, to be studied thoroughly, to the neglect of English writings of equal or higher worth? It may be urged that Latin and German works are studied to give a familiarity with the languages. English masterpieces should also be used in gaining familiarity with the language, in laying a sub-structure for future study and in giving an incentive to continued reading. The student of German, so soon as he understands the structure of the language, is led to notice excellencies of thought and style; so should the English student, having mastered the construction, turn his attention to merits of thought and expression. The chief defect of our English drill is that we separate the work in grammar and rhetoric almost entirely from the study of good prose and poetry in their completeness. Let one attempt to teach Latin or German grammar with no reference to the literature and he will see the folly of what is attempted in our schools in English study.

The case may be put briefly in this way: English is our own language; the pupil will pick up some knowledge of it here and there; some formal work is advisable, but it is not of enough importance to warrant development of new methods or systematizing; in the main, it may take what time can be spared from other, less valuable, but more customary, work; let us follow the old, easy methods, and perhaps all will come out right in the end. This seems to be the thought, if we are to judge from action, of the majority of our schools. While this spirit prevails, each year students, who might be led into the pleasant ways of literature, there to spend many happy and profitable hours, are allowed to drift into other paths, away from the sweetness and the light of the master minds, to swell the already vast number of those using the English language, with no knowledge of the greatest treasures bequeathed to them.

I have throughout spoken of the condition of affairs in the average school, as I interpret it. That there are schools in Michigan to which the above strictures do not apply; that there are many schools in which hard-working, earnest teachers are making a great effort to bring about an adequate study of English, in the face of difficulties and discouragements; that many superintendents and principals have effected remarkable growth in this regard, as great perhaps as attendant circumstances would allow; that there is an awakening interest in regard to English study everywhere, I am fully aware. Yet the fact remains—there is room for vast improvement. That improvement can be accomplished only by general, united action on the part of the teachers of the State as a class.

It is the duty of teachers to rescue English, especially English literature, from its long neglect; to demand more time for this preëmimently valuable study; to make it the important work of our schools, occupying at least one-third of the student's best hours, throughout his entire course, with manuscript work and study of masterpieces constantly during all but two or three of the earliest years of school study; to give to each student equipment for intelligent work in essay and all other manuscript forms, in use of language, and in literary criticism, based upon a careful investigation of English in all its phases and an acquaintance with the best prose and poetry of England and America. If this duty were met our high-school graduates would be young people to whom we could point with pride, for they would have the ability to pursue intelligently any line of reading, and to meet understandingly any practical problem. That time may be obtained for this drill, other studies must be dropped from our school courses, which are, in the opinion of many, too diffusive and too much burdened with one-term studies. It would be better to cut out half of the schedule classes than to continue this neglect of our noble mother-tongue and its grand literature. Can not the teachers of Michigan do something in this good work? Now is the time to act.

TRUE EDUCATION.

BY A. E. HAYNES.

For more than twenty centuries, in accordance with the teachings of Ptolemy, it was believed that the earth was the center of the universe, and therefore, that the heavens, including the sun with his wonderful retinue of shining worlds, wheeled in their vast orbits about the earth. As a consequence of this belief, great difficulty was encountered and much perplexity arose in explaining the various phenomena of the motions of the heavenly bodies. But when the true theory, enunciated by the great Copernicus, was accepted and the astronomer imagined himself placed at the sun, the *real* center of the solar system, all the hitherto apparently complicated motions of the bodies of this system were easily understood and explained. So, in treating this topic, we shall, I think, be better able to properly discuss it, if we first settle the question as to what the true object of education ought to be; and then, taking our position at this central point, we may be able to see the proper relations of the subject to the work of the school, and hence shall be enabled to treat it more justly.

First then, in answer to the query as to what the object of education ought to be, I am happy in giving an answer in which I believe we shall all concur, viz: It is the symmetrical development of the individual, that he may be the better fitted for the duties and responsibilities of life; it involves correct physical, intellectual, and moral training—a stronger body, a keener intellect, a quicker conscience. Its results should show themselves in disciplined, cultured lives—lives whose hearts beat right loyally for the good of mankind, and whose brain and hands are ready to toil wherever there is a call for honest, earnest work. In the midst of the rush and hurry of the present day, as the news of business failures, of failures in the various professions, and of the unspeakably sadder failures in character, come to us hour by hour, it needs

no more potent pleading to convince us that the world is calling for disciplined, careful thinkers, for those who are brave enough to live honest, virtuous lives, and loyal enough to promulgate and defend the truth wherever it may be found. How shall we respond to this thrilling call, is a question that presses itself upon us daily. I believe that this demand may be largely met by right education.

True education should furnish intellectual food for the learner only as fast as he is able to digest and assimilate it. Think of a plant's being built up by the elements it gathers from the earth and air without assimilating them! Without this metamorphosis the millions of green banners that wave so triumphantly in the balmy air, the sweet perfume of the flowers, and the ripened fruits of autumn, all would be wanting. True education means more than filling one's mind with the ideas of others. The pupil must be allowed to digest these and so taught to use them that they will become the means of lifting his mind into that free atmosphere where he can become one of the world's thinkers, and thus one of its helpers. Nothing is so unlike a real student as that one who is so full of the ideas of others that he has none of his own; exhibiting a mere museum of ancient wares rather than an exposition of the products of a well-trained intellect. One of the finest illustrations of accurate training came under my personal observation several years since, as I sat one evening in the chair of the observer, looking through the great telescope of Harvard College Observatory. I had been anxious for several months to see one of the many double stars or suns that are scattered through space, the components of which are never visible to the naked eye. I had scarcely signified my wish ere the observer had turned the light of his small lantern up to the circles of the instrument and had adjusted it. Without first looking through the tube himself, he turned to me and confidently said: "You will find the star near the center of the field of view;" and sure enough, though it was invisible to the unaided eye, on looking through the eye-piece, its bright, double face was seen shining through the immeasurable depths of space. It is really refreshing to meet those who are masters of their chosen profession, who have positive convictions and who *know* some things rather than guess at everything.

It is far better to be a master of the honorable and useful calling of a farmer than to be a poor teacher, or lawyer, or physician.

I have no respect for one outgrowth of our present system of education very correctly named "stuffing." It consists in distending the intellectual stomach of the pupil to the bursting point and holding it there until the organ itself is ruined. Though this system is more ridiculous and less sensible, I can compare it to nothing except the old-fashioned method of fattening turkeys for Thanksgiving, in which, when the poor fowl had eaten all that its appetite craved, small balls of meal were forced down its unwilling throat by means of a stick in the hands of the feeder. This system brings to my mind the picture of cross, sickly children whose parents have allowed them to run to the pantry every hour of the day. Is it in accordance with the laws of physiology and hygiene to expect a healthy, vigorous growth of body as the result of a constantly full stomach? Is it any more in accordance with the laws of common sense and of mind-development to expect to produce a strong, clear intellect by constantly overloading it? Is it any wonder that some of the precocious little boys and girls of our schools are never heard of after arriving at the age of manhood and womanhood, when we recall the fact that their minds have been grown in such an intellectual greenhouse? Who have

been so nurtured that they cannot bear the the chill of the world's stern request for men and women who have thoughts of their *own?*

Let the team that draws the student's mental plow be a noble ambition, and its mold-board will be kept shining by contact with flinty problems found everywhere in the sub-soil of truth, while he who follows it will gather an abundant harvest.

Let the instructor urge the team, not to go the *faster*, but that he may ride the beam in order to stir the rich mold in which the seeds of intellect and of manly purpose germinate and bring forth an hundred-fold.

Do you recall how Napoleon compelled the armor-maker to put on the breastplate he had ordered him to make and to be shot at to try its worth?

Let us not forget that in like manner will the world test the weapons with which our system of education arms the pupil. And is not this test just? Has not the world a right to demand it? Is its judgment erroneous because it expects more of those who have had these opportunities? Is it not in accordance with the words of the sacred writing, "For unto whomsoever much is given of him shall be much required?" Is it not in harmony with the lesson of the parable of the talents? Should not their lives illustrate those great words, "By their fruits ye shall know them?" You have read the words of the great apostle, whose life looms up the more grandly as it is studied, by which he admonished those early Christians to have reason for the hope within them. Is it any the less reasonable, any the less philosophical, in a system of true education to require the pupil to give positive, clear reasons; reasons based on a careful investigation of the subject? This question leads me to say that true education teaches the pupil self-reliance. Not that self-reliance which is so arrogant as to assert its independence of all external help, even of God himself, but a calm confidence in using the abilities with which the Creator has endowed one. In other words, it should teach self-help. This is only in harmony with the laws of nature. Scarcely has the little bird received sufficient plumage ere its mother pushes it from the nest and its wings must then be used or it falls to the earth. Stored up around the embryo of the seed is only sufficient nourishment to sustain the plantlet while it is unable to care for itself; it must then gather its own food or perish. No one ever becomes truly great by the efforts of others alone. Self-reliance, when understood in this sense, lies at the foundation of all true manhood, of all real scholarship—it is one of the elements of a right education.

Another feature of such education is the power of persistent concentration of thought. In other words, the pupil should be taught to govern his thoughts. This is one of the most essential elements of true scholarship and one of the most difficult to acquire. That one who thinks but little, but who is able to bring his thoughts to bear on a single problem, may accomplish more than he who thinks much and yet lacks this power. The officer who is able to rally his men and hold them at a single point may break the enemies' lines, but he who allows them to be scattered over the field is almost certain of defeat. One may read thousands of volumes and yet may not be educated; he may think a myriad thoughts, but not until he is able to marshal them, will the shock of their battle-line be felt. He may receive a diploma but it will prove to him a foolscap unless he has learned how to study, how to control the swift-winged messengers that flit through his mental sky.

Reading through a book may not mean study. Sliding over lessons does not mean discipline. Graduating from school does not necessarily carry with it the idea of truly developed manhood or womanhood.

It is possible for it to mean the very reverse. The power of a truly educated mind shows itself a leader because it has been trained to obey. This power can be acquired only by patient, long-continued, persistent study.

All the teachers on the continent could not make a student from a drone. Every real student is, to a great extent, self-made. Can I do better here than to point out some worthy example? Who has not been made sad, as with increasing interest he has read of the many difficulties and discouragements of that brave—aye, heroic, old astronomer, Kepler? But whose heart is not thrilled with joy as he learns that after seventeen years of study, he announced the solution of the problem and gave to the world the key which unlocks the secrets of the planetary orbits?

Who is not made glad as he reads of that "Columbus of the skies," Copernicus, who after years of study swept away, by a single stroke, the false astronomy of twenty centuries? Whose heart is not fired as he thinks of Rittenhouse computing eclipses on his plow-handles, or of Alexander Murray, once a poor Scotch shepherd boy, who became the greatest linguist of all Europe, and of whom it was said he could have talked with every people in their own tongue from his native hills to the Wall of China? We need not point to the past alone for examples worthy of emulation, we have them in our very midst. I have in my mind one such now, one of the most able and honored professors in our great University, who never attended school after he was fourteen years of age, but who, by the genius of untiring work has made himself one of the finest examples of true education that our commonwealth can boast.

Do not understand me as undervaluing the benefits of an extended and systematic course of study in our schools; for its advantages are manifold. The more extended the course, within reasonable limits, the better, provided the work be well done and the learner use the opportunities thus afforded as a means of enabling him to rise from the level of a mere book-worm to the dignity of a real student. There is no honorable sphere in which men act where disciplined mind is not helpful; from him who with beetle and wedge divides the timber, to him who by the most careful chemical analysis determines the various elements which enter into its composition. It is as necessary to the district school teacher, who directs the child in its attempts to find the path of knowledge, as to an Agassiz or a Humboldt, who leads the scientific world in thought. It is as necessary to the humblest minister of the gospel as it was to the son of that poor miner of Eisleben, who at Wittenberg started a a reformation which has revolutionized the belief of a large part of the Christian world. It is more essential to him who wields the pen, and thus molds the minds of millions, than to him who marshals armies.

When we, as teachers, instead of giving the pupil a general knowledge of *many* things, shall labor to make him efficient in *all he attempts*, then will our system of education have taken a forward step. When the pupil shall know that he is victor on every field over which he has passed, then will he be more successful in practical life. Better is one year of real study than years of "going through books."

A correct system of education will also seek to ascertain the direction in which the pupil may be best fitted to act, and will encourage him to especial effort in that direction. It will not, like the stern Hindoo law, compel one to follow the profession of his ancestors. For instance, if one has a natural taste for drawing or mechanics, for painting or mathematics, while other

studies are not neglected, he should be carefully encouraged to develop this special gift. Do you remember how, when Benjamin West was a child, his mother found him trying to use the paints one day, and instead of chastising him for being in mischief, brushed back the curls from his roguish face and kissed him?

Have you heard, too, of the saying of that same boy after he had become a man and had won an immortality of fame: "My mother's kiss did it all?" But true education means more than all these combined. It carries with it true dignity, a consciousness of being above meanness in any form, whether it consists in breaking the laws of one's country and violating the dictates of conscience in playing so-called school or college jokes, or in deceiving a client to secure his money.

It bears with it the royalty of true manhood, the chastity of noble womanhood, it means refinement and culture, a refinement which is too self-respectful to use language that is not stamped with purity, or to act contrary to the principles of highest virtue; a culture which widens the intellect while it broadens the heart and causes it to throb more in sympathy with the needs of the world, more loyally for one's country and his God.

"It has a faith so calm that chaos cannot make it tremble, and a jubilee of Satan cannot make it waver, and yet so heroic that it will stand alone on the battle-field like Abdiel and conquer the most terrible foes by persistence as Bunyan's Christian conquered Apollyon; a fellowship with Heaven so intimate and fruitful that the midnight hears its prayer, and the very dungeons ring with its *Te Deum*; these elements dwelling together in the temple of a single man's experience tell us the meaning of life and show us its splendid fruitage. And it is forever the aim of all true culture to induce such experience and develop such results as these. Scholarship (true education) is doing its true work just in proportion as it takes a mind, in its weakness or selects it from the common mass of minds, and puts it in possession of such high capacities, and rouses it to such high work. And such a mind, great though it be in itself, is something more and better than a lifeless monument.

"It is a force in society—a power in life. The very breath of such a man makes the air fragrant; he proclaims the dignity and worth of a human soul by his simple greatness; his exalted character rebukes all low living; and his high experience, reflected in his face, beckons all observers upward and encourage their aspiration. He shows them the greatness which germinates within themselves and lifts the goal of pursuit far away toward heaven. He can not live for himself alone; for his broad and far-reaching shadow offers shelter when he stands solitary and silent, and the garlands of glory which have been wreathed about him tell the story of his struggles to the observer, and cry as with prophetic tongue: 'He who would be crowned must conquer.' And such a man is not and cannot be a mere silent and passive worker. He will see the meaning of life, and by his work interpret it.

"Meeting ignorance and misconception, he will make his lips distill wisdom, and put bewildered souls on the true road. He will lay his strong arm under weakness and lift it to its feet again.

"Good causes that have been betrayed and impeached will find in him an advocate, and righteous principles that were crucified he will take gently down from the cross and laying them away in his own new tomb wait for their triumphant resurrection."

I shall not soon forget an account which a veteran of our late civil war gave of an alarm that occurred just before the first battle of Bull Run. "'Tis mid-

night, the earth is hushed in deep repose, even the stars seem to cease their scintillations in sleep. Suddenly the booming of a heavy gun breaks the silence, in an instant the roll of drums and the hurried commands of officers pass from tent to tent and in twenty minutes sixty thousand men stand in line of battle, anxiously awaiting the approach of the foe. Half an hour ago they were quietly sleeping—*now* they are ready to face the storm of death."

So, methinks, should it be with the disciples of true education. When the sound of error, of injustice, comes ringing in their ears, like the army that sleeps on its arms, should their energies be marshaled to hurl back these rebel hosts and to plant over their dark lines the royal standard of truth and right. To be rightly educated does not mean that one shall be *ashamed* or *afraid* of *any* honest labor. Sometimes the most dangerous period in a student's career comes at the close of his course of study, while he is waiting, perchance, Micawber-like, to be called from school honors to some high position for which he may not be fitted, rather than *making* such a place for himself, by showing the world that he is brave enough and manly enough to bring dignity and the fruits of education to any honorable calling rather than to remain idle; strong enough to bear the burdens and responsibilities of life more successfully, more loyally for the discipline he has received and the advantages he has enjoyed.

I would not close this exercise without pointing out what seems to me the most essential feature included in a system of true education. It is this, that those who are employed as instructors may exemplify their noble calling in their daily lives.

If our ideal is to teach secular truth simply, we have a *low* ideal of one of the *highest* professions among men. In fact, we have an ideal which we can not reach, if we would; for it is utterly impossible to teach intellectual truth without at the same time inculcating moral truth. Francis Parker says: "The opinion prevails among many teachers that intellectual development is, by its nature, separate and distinct from moral training. Of all the evils of our schools, this terrible mistake is productive of the greatest."

In the daily intercourse of the class-room, the personality, the character of the teacher will be felt; he can no more escape giving out that silent yet potent influence which molds character for good or ill than he can escape the law of gravity that binds him to the earth. The writer of "Geometry and Faith" has, indeed, spoken truly where he says: "Whatever a man does, thinks, or feels, even in solitude, has its effect on the world. * * * It may hereafter be possible for some higher intelligence than ours to read the record of my interior life written in positive or negative characters, upon the soul of some poor man whom I have never seen, but whom I must, nevertheless, have helped or hindered by my every act and word.

"The personal quality of the teacher is as important a factor of education as anything taught. If a teacher is magnetic, all that he is in manhood and faith and conviction will impress itself upon the scholar. 'Our very presence,' says Canon Liddon, 'is of itself a propagation of some faith.'

" 'Man grows more by contact with other spirits than by any other influence,' said Carlyle. 'What I took away from Yale,' says a distinguished graduate, 'was the spirit of the president.' It is said when a daughter of Emerson sent to ask him whether she should study Greek, botany, or metaphysics, he wrote back to her saying it made no difference what she studied; the question of importance was with whom she studied. Though an over-statement it may be, if too literally understood, yet this advice of Emerson contains a great practical truth. Old Plato tells us that he said to Hippocrates, when just entering himself as

the pupil of a certain teacher: 'You are about to deliver your spirit into his hands and it behooves you to consider well who and what the man is into whose keeping you deliver up so sacred a deposit.' Thomas Arnold formed the scholars of Rugby by his Christian manhood hardly less than by any private instruction. Those pupils saw him, felt him as an awakening influence among them. 'His very presence,' says Dean Stanley, 'seemed to create a new spirit of health and vigor among them.' The deep discerning Emerson, whom the world misses and whose personality was as imposing as his words, said: 'If a teacher has any opinion which he wishes to conceal, his pupils will become as thoroughly indoctrinated into that as into any which he publishes.' The infidel teacher will make infidels. The Christian teacher will make Christian believers. The teacher whose personality is in his favor will tend to produce his like, both in religion and life; he will conciliate his pupil-associates towards his own position, whatever it is, and according to his power of personal stimulus." If such be the fact, when a large part of the time and effort is to present secular or scientific truth and where the classes referred to are largely made up of young men and women, how much more powerful must be the influence of the teacher of children? Their spirits are yet plastic—they are easily impressed—they are matchless imitators; this is the moulding period of their lives. One of the most celebrated German educators well understood the power of the personal character of the teacher over the youth when he said to his emperor, "Give me the first seven years of the life of your subjects, and I will willingly grant you all the rest; for I shall thus be able to make the laws of the empire."

If I may be allowed to testify from my own experience, simply from a secular point of view, I will say that it is in harmony with the foregoing. In a cramped, little, log school-house, in the township of Camden, Hillsdale county, of this state, sitting on the rough slabs from logs, of which the seats were made —I remember of being a pupil. Most that transpired there, or that I learned through that long, cold winter has passed from my memory; but there is one thing that I shall remember as long as memory survives. It is the picture of one of the teachers of my childhood, as he knelt there and offered up his fervent morning prayers in our midst, for God's blessing upon us, ere we began the work of the day. On the camping ground, too, of the memories of my younger manhood I find impressed the truthful and very significant words of my favorite college professor: "There is theology in a triangle. No one can comprehend its wonderful properties and escape the conviction that they are emanations from the Infinite. A true mathematician can never be an atheist;" while near to these words are vividly impressed the words of my beloved instructor in the University: "The best genius God ever gave a man is worthy purposes and hard work," while over against the wall of his study, filled as it is with mathematical works, appears the great promise of the Master: "Blessed are the pure in heart; for they shall see God." I admired each of these teachers for their great knowledge and am grateful for their instruction in literary and scientific truths, these had some power over me I gladly admit; but I love their memories because of their good lives, and to-day I am thankful in saying, in spite of their admirable teaching of secular truth, that the quiet influence of their noble Christian characters has proved to be a far greater blessing to me than all else beside. I repeat then that character is one of the most powerful elements in teaching, and I affirm that a teacher is doing his best work only when he possesses a good moral influence.

Like produces like in morals as well as elsewhere. It is God's great law, "Whatsoever a man soweth, that shall he also reap." Character produces

character. One might as well expect a crop of corn by planting potatoes as to hope to develop a noble, manly character in his pupil when he does not possess it himself, when he can not illuminate the way and enforce the truth by that king of arguments for Christianity—a Christian life. Let us not, in our teaching, confound reputation with character. Reputation is what men *think* we are. Character is what God *knows* we are. "Whatever we would have our pupils become, we must *be* ourselves."

My fellow teachers, how shall the blind lead the blind? Let us pray for sight. The mission of true education is too glorious, life's possibilities are too great to excuse us from preparing for the great work that calls us, or from winning the victory that Heaven gives to every true life.

NEAR-SIGHTEDNESS; ITS NATURE, ITS CAUSES, AND SOME MEANS FOR PREVENTING IT.

BY LEARTUS CONNOR, M. D.

Among the changes wrought by civilization in the human body, perhaps none is more marked than the changes in the eye. Of all the changes induced in the eye perhaps none is more disastrous than the one termed near-sightedness or myopia. The more advanced the progress of civilization the more frequent are the cases of myopia and the worse do the separate cases become.

Near-sight or myopia when once established cannot be cured. When once the condition has so far advanced as to render reading impossible there is no relief. The cases that thus become blind without hope of relief, in so far as regaining the power to read is concerned, are numerous and constantly increasing.

What is near-sight, or myopia? From the stand-point of the anatomist it is a condition in which the antero-posterior diameter of the eye is too long. Once having started to elongate, the tendency is to keep on elongating. Physiologically, near-sight is a condition in which the rays of light coming from a long distance, cannot be brought to a focus on the lining membrane of the posterior portion of the eye; in fact they are not able to reach the fundus at all. From the stand-point of actual disease, near-sightedness is a disease of the posterior portion of the eye, which tends to spread, and with its spread to destroy all power of seeing in the portions involved.

My object is simply to direct the attention of those before me to some of the methods by which civilization produces these horrible results, and to point out some of the means by which these methods may be avoided and the eye be retained, fitted to do its appointed work, till the end of life.

Among what classes of persons, do we find most frequently persons near-sighted? This question may be shortly answered by saying, all who are compelled to look for a long time at near objects daily. Hence, we find grouped together, school children, teachers, book-keepers, engravers, watchmakers, newspaper men, sewing women, etc., etc. How frequent is near-sightedness! Cohen of Breslau, who was the first to pursue this study on a large scale, in

the examination of school children, found in the ten thousand first examined, over one thousand near-sighted persons.

Dr. Schnabe from an examination of two hundred and ten young persons engaged in employment requiring them to look steadily at small objects, found one hundred and twenty near-sighted, forty hypermetropic, and fifty normal sighted.

Pfluger says, that of forty-five thousand children lately examined in Germany, more than one half were found to be suffering from defective vision. In some schools the percentage of the near sighted was seventy per cent., in others eighty per cent. In America there have been a large nunmber of cases examined in the larger cities. The same general results were reached, but the percentage of the near sighted was found much smaller. But these studies now covering more than a hundred thousand examinations, teach us also that in the lowest classes in the schools the percentage was very small, one or two per cent., but in the class next above there was a larger percentage, and so with each class till in the very highest classes of the universities it has reached eighty per cent.

But this is not all; these same examinations have taught us that the myopia in any given case, gets worse and worse the higher in the school or college he gets. Derby's examinations at Amherst College have proved that during the American College life, myopia is developed and increases. The following observations of Dr. Henry Ladlow, at the Greenwich Hospital School of England, prove that the myopia is induced by the peculiar influences of the school life. This school is for the training of boys for the British navy. The boys enter at the age of thirteen. They are carefully examined, no defective boy being admitted. And yet, of the one thousand and seventy-four who were admitted between 1876 and 1881, sixty were rejected at the end of two years and a half as having such near-sighted eyes as to become unfit to enter upon the duties of the navy. It will not do to say that these would have become near sighted in any case, for the entire number of boys were divided into gangs and set at some twenty different kinds of work. Of those who became myopic almost all were from the class of those who worked at studies much as school children. In Alsace Lorraine it is stated that boys of thirteen years of age have on an average eight hours of study. Further it is said that of those who pass the educational standard, which qualifies them for voluntary service in the army, no less than eighty per cent. are physically unsuited for the army; while the prevalence of myopia is well known. Here we have an example of a people absolutely spending large sums in the training of young men for public service, and in this very training absolutely unfitting a large percentage of them for such service.

There are two causes of myopia, inheritance and occupation. Among the negroes and country people, myopia is relatively very rare. Negroes and country people are rarely myopic and hence their children are rarely so.

But among the white races, who live in cites, myopia is common and increasing. Each generation inherits from its ancestors some eye defect and so increases it that their children are still worse than they were.

But in spite of heredity it is more than probable that occupation during the time of the growth of the eyes has still more to do with the causation of myopia.

What are the classes of influences, which, in the school room and shop work injury to the eyes?

1. Those which compel the eyes to strain themselves in order to see, viz.: bad ventilation, bad light, bad type, pale ink, too many hours successively given to the same work, as in reading, writing, sewing, etc., work which causes the eye to be at work early and late.

2. All conditions which cause a congestion or rush of blood to the head and eyes. To this class belong not only the things just mentioned but also the construction of seats and desks, by which the head is so bent upon the shoulders as to cause a compression of the veins returning the blood from the head and eyes to the heart.

How does bad air affect the eyes? By causing an irritation of the covering of the eye by which it becomes covered more or less with an excess of moisture, and mucous. This renders the surface of the cornea irregular, and so makes the image produced on the retina less distinct. This in turn calls for greater strain to see. If the bad air is continued a long time the eyelids become the seat of inflammation, and the eye strain is rendered still worse. Ultimately the eye becomes permanently crippled.

How does bad light affect the eye sight? This calls for the inquiry, what is bad light? Briefly, all light may be called bad which does not enable a healthy eye to read ordinary print at ordinary distance with perfect comfort. If the light be not strong enough the object must be held closer to the eye in order to see, and, hence, the strain upon the eye muscles is greatly increased.

Is it possible to fix any absolute standard for the amount of lighting a room should have? No; because of the surroundings of the building. Thus it is clear that fewer windows will be needed when a building stands in a large open space without trees, or buidings, or hills to shut off the sun's rays.

But in a general way it has been reckoned in Germany, that in a school-room each scholar should have from two to three hundred square inches of glass, or what would be equal to a pane of from 14 to 17 inches square. As a rule it may be said that a room cannot have too much light if there be curtains or shades by which the direct rays of the sun can be kept from falling on the eye.

From what direction should the light come? Not from the front; because this contracts the pupils so much as to shut off a large amount of the light, and thus to diminish the size of the object, and force the person to bring his book or work nearer him. Nor should the light come from the back, as then the object lies in the shadow of the body, and so is again rendered less distinct, and more effort is required to see. Nor should the light come from the right side, because the moving of the hand obstructs intermittently the light. This causes a constant change in the muscles of accommodation, and the size of the pupils and so brings an excessive amount of work upon the eye. The best light comes from the left side and from above rather than below the level of the head.

How does the size and quality of type cause disease of the eyes? In answering this question it must be borne in mind that young children should never hold the book nearer than ten inches and adults farther than eighteen inches. If distinct vision be not perfect at these distances then there is something wrong, either with the printing or the eyes. The finer the type is the closer it must be brought to the eyes: if within the limits mentioned the muscles of accommodation and convergence are brought into excessive exercise. All admit that this excessive exercise is the great cause of myopia. Too fine print, too fine writing, sewing, or too fine work of any sort is a factor in causing near-sightedness.

Too coarse print is wearisome to the eyes because of the constant change required in order to see the different letters and words. A faintly printed page must be brought nearer than a well printed page. An indistinctly printed page is also, very wearisome. Heavy faced type is the easiest to the eye, as compared with the light faced.

The quality of the ink and the color of the paper have much to do with the distinctness of the words and the ease with which reading is accomplished. Perhaps the best color of paper is that which is in the slightest degree of a yellow tint. The quality of the paper is a matter of importance, as it should be entirely free from transparency and sponginess. Having a close, fine texture, it will take and hold the impressions of the type so that one side will not appear at all on the other and each letter stand out with perfect distinctness.

How does too constant work produce eye diseases? Like any other organ the eye becomes exhausted by long continuous work. If one attempts to look at one little point for any length of time, as in a photographer's rooom while sitting for a picture, it is soon seen that all things blur before the eye. In ordinary work this final effect of exhaustion of the nerve cells of the retina is prevented by the change of the eye from one letter or word to another. But even thus the eye soon becomes weary. The eye should be raised from the object it is looking at many times during an hour. This in adults usually takes place, but not so frequently in children.

What conditions produce a congestion of the head and eyes? All of the causes which compel the eyes to strain themselves in order to see. But, in addition to these, may be mentioned the position in which a book is held or placed in order to read or write. Thus if the desk be so low that the person must bend over in order to see, the eyes will become readily over filled with blood and so the eyes suffer from lack of good circulating blood. If seats are such that one readily becomes weary the same result is likely to happen to the student.

Why does reading in cars, or other vehicles tend to produce diseases of the eyes? Because the movements of the car cause a constant movement of the printed page, and so compels a constant effort to reädjust the eye to these several movements. This causes a compression of the eyeball by the muscles, an accumulation of blood in the inerior of the eye, and an exhaustion of the muscles of accommodation; conditions all fraught with damage to the structures of the eyes.

How does the looking at near objects produce intra-ocular congestion? To understand this it must be remembered that the six muscles surrounding the eyeball press very tightly all the sides of the eyeball when we look at very close objects. The blood escapes from the eyeball by means of vessels which pass obliquely through the firm walls of the outer coating of the eye. The pressure of the muscles of the eyeball during convergence, closes, in part, these vessels carrying the blood from the eye. Little by little the venous blood is dammed back in the eye till most intense pressure results. But this is not all: inside of the eye, just back of and behind the iris, is a muscle, which among other uses, serves to relax the crystalline lens fibers so that they can render the lens more convex and so overcome the defect of vision. But this muscle in performing this work pulls upon the delicate portions of the inner coats of the eye near the entrance of the optic nerve from the brain at the posterior portion of the eye. This constant pulling after a time sets up an inflammation and as a final result we have an actual destruction of more or less of the tissues in the back of the eye. Thus by the traction of the intra-

ocular muscles, and the pressure of the extra-ocular muscles, we have the posterior portion of the eyeball placed in a condition most favorable for destruction.

Myopia cannot be cured. Can it be prevented? In most cases it certainly can. But how? Simply by avoiding its causes. It will be noticed that it generally appears before the fifteenth year, rarely does it develop after full growth of the body. It is clear, then, that to prevent near-sightedness, all of life anterior to this must be so conducted as to avoid its causes. Homes and schools and workshops, etc., must all be constructed and managed to avoid, in so far as possible, all demands upon the eye which it cannot safely meet.

I. Under no circumstances should a book be studied or read by a child which it cannot readily see at a distance of ten inches. If this is not possible, then the book or the child or the light is at fault. The fault must be rectified ere pursuing the reading, the study, or the work.

II. No person should keep the eyes fixed upon any fine study or work for more than a quarter of an hour at a time. In childhood the eyes should be lifted from the print or work and directed to some distant objects even oftener than this. It were better that muscular exercises of some sort were made to break up the day of school work once every half hour for children under ten years, and once an hour for those older.

III. No person should study or exert his eyes at fine work for any considerable period, with his head bent so that the chin rests upon the chest, and the shoulders bent forward.

IV. Statistics on a large scale show that of students in the same grade of classes, those who studied two hours out of school were near-sighted to the extent of seventeen per cent., while of those who studied six hours out of school forty per cent. were near-sighted. Thus it seems evident that too long continuance at fine work by the growing child, exerts a positive and alarming influence upon the production of near-sightedness. Beyond any doubt the school hours are now too long in most schools, and the compelling of the students to work out of school hours certainly is fraught with grave danger to the eyes, to say nothing of the spinal column and other organs of the body. It is clear then, that to save the eyes of growing persons from becoming myopic they must avoid fixing the eyes too long upon small objects.

V. Another hint as to what has been done in the matter of preventing near-sightedness may be illustrated by an additional fact in the history of the Greenwich Hospital School of England, to which we have already alluded. The disastrous effects of the school life of the boys there was brought by the medical men about the school to the notice of the authorities, and they at once adopted the suggestions offered. The old seats, the dark rooms, the faulty desks, the ventillation, and the heating were so altered as to meet the real needs of the pupils. Since then there have been no cases of myopia reported from this school. Thus by actual experiment it is proved that proper care of children has stopped the development of near-sightedness in one school. What has been done in this school can be done in others of a similar nature.

VI. But perhaps the most important portion of preventing near-sightedness must be done in the home. Beyond a doubt, were the homes such as they should be for maintaining the health of the eyes of the young, the schools would be right also. Poor light, in every sense of the term, bad ventillation, or rather no ventillation, defective heating apparatuses, unwholesome food, society habits, which keep the children up till eleven or twelve o'clock, the

making the boy enter upon the life of a man before his beard has begun to grow, and the girl to engage in the dissipations of society before she has put on long dresses, all these and a thousand other things so cluster about the home, the shop, etc., that the poor eyes get a slim chance to grow strong and perfect. Meantime, while these things are being righted, it only remains for such as know how, to keep their eyes well and teach those within the bounds of their influence to do likewise.

We believe that it would be of inestimable service if the State should pass a general law by which no public school or factory should be started without first securing a license from a board appointed by the Governor. Among other things this license should state that at least one thousand cubic feet of air was provided for each inmate; that the lighting, the heating, the sewerage, the water, the ventillation, etc., etc., were all such as modern science has demonstrated as absolutely needful for the health of the inmates of these schools.

All such schools, factories, etc., should have a competent medical adviser.

READING IN PUBLIC SCHOOLS.

BY MRS. EDNA CHAFFEE NOBLE.

Once when a city was besieged, a council of the people was called to determine the best means of defense. Each artisan recommended the wares in which he dealt; the blacksmith, iron; the mason, brick; the carpenter, wood; the shoemaker said, "hang your walls with new boots." Our best means of defense from foes within and without—is education, and those who have spoken before me, have no doubt suggested some of its best means. But I cannot better express my own thoughts than by qouting Charlotte Cushman, who said: "I believe I love and reverence all arts equally, only placing my own a little above the others. I believe when God conceived the world, that was poetry; when He formed it, that was sculpture; when He colored it, that was painting; and when He peopled it with living men and women, that was the grand, divine, eternal drama." I, too, love and reverence all means of education, only placing reading a little above the others. Our times and manners demand that the science of reading should be more generally understood, and more carefully taught.

The ends of the earth meet together gladly in common counsel, and if there is a leading power in these assemblies, it will be found in the man who has, not only worthy thoughts, but the power to give them worthy expression. There is a stronger motive for the study of reading in this age, than there has ever been before. Our grand government calls for it; for the people have a voice in all that pertains to any vital subject, from the least to the greatest. Where rule is given into one hand there is little need of discussion for purposes of wise decision. A despot decides for his subjects. We are a free people; we have "a government of the people, by the people, for the people;" we speak one tongue, and the great questions of truth, temperance, reform, finance, of capital and labor are to be discussed, and they are waiting the living voice of the living man. No book or paper can wield the power, or usurp the place of expressive man.

How few give due importance to this work of training our natural powers to their highest development for purposes of expression! How many consider such effort as something strained and artificial, and cultivation in this direction needless and mischievous! This consideration is wholly false. This study is for purposes of the highest development for the whole man; the end, is to win the attention of the hearer, by all that there is in the most powerful thoughts powerfully expressed; to inspire a love for the best in literature, by lifting it from its grave in letters, and giving it all there is of life and inspiration, all of feeling and passion, through the medium of the speaking voice.

There is a certain adaptation of means to an end, which it is impossible for the unskilled to see at once. We cannot see ourselves as others see us, and it does not injure our genius, if we have any, to train, cut and prune it. A rose-bush, an apple-tree, and a grape, although the most natural things in the world, are often improved by care and attention. I do not like to say by artificial means, for anything that makes a fuller ear of corn, a straighter tree, a more perfect rose, or a more manly man, is not art; it belongs to the corn, the tree, the rose, the man. We have been given this germ of nature, to be fostered and perfected; one talent, that we may make it more.

How to train and direct, to the best ends, the pupils of our public schools in this matter of reading, is the subject for a half hour's rapid survey. Speech, as applied to reading, was formerly the mere pronunciation of words, with counts of one, two, three, and four for comma, semicolon, colon, and period, to mark the grammatical pauses. This was a mere mechanical calling of words. Conversation is the natural outlet of our thoughts, and it is the seed from which must grow the tree of expression, with branches wide enough to cover all the possibilities of our varying natures. If we exercise our speech most in conversation, here then is the most important field of labor.

Careful attention should be given to habits of utterance, for these "beginning in cobwebs, end in chains." The ear should become critical of conversation with regard to tone, enunciation and expression. We use the same instrument in reading as in talking; we call up the same thoughts, are moved by the same feelings, are wrought upon by the same passions. Cultivate all the agents of expression for conversation, and we have the natural method of reading. The only distinction between conversation and reading is a mechanical one, and may be summed up in the words, exaggeration in true proportion.

A larger room demands increased intensity of voice and manner; a greater number of persons to hear, more volume and force of expression. Prof. Moses True Brown says: "A child can never read as well as he can talk, a man never better." This conversational basis will furnish the most impressive form for utterance, though the thought be couched in the most ornate oratorical diction. The wider fields of dramatic expression require a broader culture than can be, or ought to be, given them in public schools. There is not time for it, and there are other studies more important. Every teacher in every department should understand enough of the elementary and appropriate powers of our language as to be able to guide the pupil to a distinct expression of each thought contained in each exercise, be it one of grammar, arithmetic, or reading.

The especial teacher of the reading class finds it difficult to hold the attention of pupils. One reason for this is that the scholars are required to read language above their comprehension, and are of a necessity merely mechanical pronouncers of words, in consequence of which they acquire habits of unintelligent reading, which are seldom thrown off in after life. If pronunciation

is the object, read the lesson backward, leaving the mind unembarassed by the thought. A better method is reading ideas and not words. Ask the pupil to read silently the piece selected, and give the substance in his own language, with open mouth, clear cut words, and with a strength of voice sufficient to be heard in any part of the room. The next step should be recitation, and the very last reading aloud, which is the most difficult of all. In conversation and recitation we are looking inward to something known; in reading we are looking outward, with attention often engrossed by words we do not understand, or by the construction of sentences, which at first glance seem complicated.

Not until we have the inward impression, can we give the outward expression, and not then even with grace and ease, if the vehicle or conveyance is clumsy or unused to obey the will. The teacher's work then is mainly mechanical. While informing the understanding do not neglect to train the environment so that the body may indeed be the visible counterpart of the soul; and the voice, the spirit made audible. The Egyptian symbol of language is a tongue under a hand, showing that by voice and gesture we have two natural methods of expression. Elementary training in these two functions, comprises all that it is necessary for the pupil to receive in the public schools. Demosthenes says: "Cultured tone and manner are elements absolutely necessary for success in life." Manner attracts or repels before the voice has opportunity to speak for itself. Manner speaks first, for light travels faster than sound, and we are seen before we are heard.

First of all then, the machine, or body, should be put in order, for it has rights that should be respected. The body is composed of alterable and unalterable parts. The alterable parts should be so exercised daily, as to give the utmost freedom and grace to all movements, and this can only be attained when there is nothing else to think of. Awkwardness appears when a muscle is unused to the action demanded of it, or when it forgets its training. "When there is strength at the center, there will be freedom at the surface." In choosing physical exercises for class drill in public schools, there are three important points to be considered: The bearings of the pupils—these are hereditary, and can be little changed; the inflections or bendings of the body, which are only for some present and fleeting purpose; and the attitudes, which are arrested inflections. The physical drill, explained in Monroe's Vocal Gymnastics, perhaps meets the requirements of this training better than any other embodied in book form. An easy grace should characterise all motions, whether quiet or forcible. There should be perfect harmony of all parts, an even symmetry, an equal distribution of strength, so that every muscle may be ready for action, for the outward movement by which the inward force expends itself. Gesture will then become the natural courtesy of the body and its organs toward the demands of the soul, which can only find expression through its visible agent. Breath is the connecting link between manner, which makes no noise, and yet impresses the eye so markedly, and tone, which is audible, and is addressed to the ear. After the physical, breathing exercises are next in importance, and their power should be measured and used. Breath is one side of the great B triangle, blood, brain, and breath, which a French physiologist has called the tripod of life.

Expression has much to do with each side of this triangle, but for this fundamental and elementary work, breath is the first and most important factor in learning to read. A first thought upon this subject would scorn the second, that decides that breathing for purposes of vocalization is not uncon-

scious and instinctive, but must be cultivated. The little stock of air we store away in ordinary breathing is quite too little for powerful and sustained voice effort. Breathing to sustain life is unconscious, but this unstudied inhalation and exhalation does not play a tune upon the vocal cords and they are silent.

No one can read well without a proper understanding of this important power of speech. Inhalation ought always to be through the nostrils, and so deep as to completely fill the lungs. Direct the breath toward the front of the mouth in exhalation, at the same time making the expenditure most economic. All breathing should be from the waist, using the diaphragm as the power to propel the breath from the lungs into the windpipe.

Here we reach the office of the larynx, which is to produce tone. It plays, and with the help of the articulating organs, it says. Sound without articulation is wonderfully expressive, and diagrams the animal which makes it. Consider the difference between the bleat of the lamb and the roar of the lion. If the breathing exercises are properly mastered, there is little practice needed for the production of proper tone, for voicing is almost entirely dependent upon proper muscular action and the right use of breath.

There are two objects in voice culture: Development and power; quality and variety. To increase power, test the voice to the utmost by vigorously whispering the aspirates. Depth is gained by constant practice of the sub-vocals, especially b, d, g.

The third and last essential for a perfectly trained voice, is smoothness, which can be cultivated by sounding the vowel elements. The jaw must be sufficiently dropped to give the vibration in the mouth, and the action of the jaw must be loose or the sound will be too hard in quality. To acquire greater resonance, a daily voice drill with the musical sub-vocals, l, m, n, and ng, will be found effective, and the practice will also aid in ridding the voice of the peculiarly American nasal quality. The breath used should all be vocalized for the production of pure tone. The ear must be taught to distinguish readily different qualities of sound.

Americans particularly need careful voice culture. Dr. Holmes says: "Their east winds, lean soil, their independence and sharp business habits, are not the best things for the larynx." Therefore, culture, in this regard, does more for the American than nature. We sometimes hear that great artists have made their own voices. This must be a mistake; no one can manufacture a voice, but it can be greatly mended. The weak can be made strong; the unmanageable made pliant; the course, harsh voice can be smoothed and made soft. A voice may gain much in volume and compass. We can not use this wonderful instrument properly, without study, any more than we can bring out the hidden music concealed in the violin, without long and careful labor.

We have two voices, one for mere vocal expression, the voice with which to buy and sell, and the dynamic voice, which addresses the heart. The first is the one we can reach and change by mechanical training; the last is governed by our appreciation of our subject, and our intensity of feeling, for what we feel will creep into our tone, while what we think may be put into articulations. Passing from the world of sounds, which all animals share in common, we take another and higher step. Articulation belongs to man alone, and it has to do with vocal mechanics.

"What fine chisel ever yet cut breath?" The consonants are constantly cutting breath into distinct and separate forms, and giving shape to the vowels. The very life of language depends upon clear and distinct enuncia-

tion. The organs of articulation constitute what may be termed a set of molds, capable of changing position at will, and any imperfection of these molds will leave a corresponding defect in the utterance. It is apparent then, that the development and perfection of these organs, by the use of phonetic spelling, visible speech, rapid enunciation, etc., etc., is a work of primary importance. Training the body, securing the control of breath, gaining full and vigorous powers of vocalization, perfecting articulation, constitutes the elementary mechanism of all correct reading, it does not give significent reading. A person is not necessarily an artist because he possesses a palette and paint. There is a difference between pigments and pictures. So a pupil must not expect to read significantly, although he possesses the necessary organs, and these under complete control. After we pass beyond the mechanical, the intellectual faculties are brought into exercise, chiefly the judgment and taste; and we utter clauses and sentences, with a purpose in expression, founded on the relations which language bears to thought, feeling, and passion. To this end we use other agents of expression. Force, as made practical in the various forms of stress; tone, in its trinity of use—rate, quantity, and pause; quality, which eludes definition, and pitch, with its variations of inflection and modulation. Let us no longer depend upon nature uneducated and unskilled, in this matter of reading, but upon nature fostered and trained by diligent study and steady application, and reading may then take the place it deserves as one of the most important and necessary branches of education.

DEFECTS IN OUR PRESENT SYSTEM OF COUNTY EXAMINATIONS AND THEIR REMEDIES.

BY S. G. BURKHEAD.

Our boasted "school system extends from the lowest ungraded schools up to the State University." We can not well speak of one element of this system without touching upon others, so closely related are they. It has been said many times, by those who ought to know, that our country schools are without system, in any true sense of that word; and it seems to me that the very word, "ungraded," carries with it the want of definite systematic work.

Under our present system of county examinations, our country schools are improving, no doubt; but it is questionable whether they advance as they ought. There are some defects in the examinations, *per se*, more perhaps, in their relations to other parts of the general system.

Heretofore, it has seemed to me that the foundation of our educational structure has been greatly overlooked. Contrary to the general order of things, it appears to be growing from the top downward, and we hear a great deal more said now at our associations, and elsewhere, about our common schools. In other words, more than commensurate attention has been given to the upper schools of our commonwealth; the rural districts have been left too much to the accidents of locality, run without definite requirements, subject to no efficient supervision, largely in charge of transient novices.

Parents have observed the greater efficiency of our graded schools, and perhaps, in many cases, prematurely send their children away from home to

schools where they believe they will enjoy greater advantages, This would seem to be verified by the State Superintendent's report of 1881, in which he says: "Of the public school pupils it may be noted, too, that while the ungraded schools had 1,703 fewer in attendance, the graded ones had 10,890 more." It may not be possible to make our country schools as good as our village and city schools, for many reasons; but I think they ought to be made as good as possible, and I believe, notwithstanding the many obstacles in the way of realizing our highest ideals, obstacles in the very nature of things difficult to overcome, that they might be much better than they are, or can be, under the present system of examinations and supervision.

The separation of elements, naturally so closely allied as examination and supervision, is an important defect in our system, and causes some of the main defects in the examinations, *per se*.

According to law, teachers shall be deemed qualified in respect to good, moral character, learning, and ability to instruct and govern a school. These qualifications are to be ascertained by the examiners. Can they be reasonably done under the present system? I think our examining boards do not usually attempt, personally, to ascertain any other qualification than that in respect to learning, about a quarter of what is required by law, and the manner in which the attempt to do even that, is defective and unsatisfactory.

Coming in contact with teachers for only a day or two, at a written examination, is not sufficient to ascertain even scholarship. Oral examinations should supplement written; and further knowledge should be obtained by observing the work done in the school-room, and the influence of the teacher in the district. The teacher's ability to get the scholars to do, and be, should be estimated especially after the first examination. Until a teacher has had some experience, an infallible test cannot be made. The best scholars do not always make the best teachers. Results from work done and influence exerted, should determine the renewal of certificates, rather than the percentages of re-examination on old subjects.

Far be it from me to be found among croakers. It is easy to find fault with the best things of this world. I speak not upon this subject from choice of my own, but, like a dutiful pupil, from that of our worthy president. Our system, as a whole, is a growth of parts, not likely to be overthrown, but subject to corrections, some eliminations or additions, perhaps, and to constant improvements.

Just criticism is wholesome, and I do not know but unjust is, too, sometimes. At any rate the teacher should hail all true advance in his profession with delight. All improvements must come through his efforts, directly or indirectly. Schools are what teachers make them, in the main. To supply the schools with the best possible teachers is the duty of all school officers. The divided attention now given to school affairs is a defect. A large number of the school inspectors, whose duty it is to visit the schools and report to their respective examining boards, are incompetent to properly do their work. If not incompetent in themselves, they are incompetent by the limitations of the system, or of the law creating the system. So are the members of the examining boards. The best men, limited as they are, and engaged in other professions receiving their best thought and most careful preparation, can not promote the highest interests of our schools. I know the thought is too prevalent that any one almost can teach children, and that school-men need not be men wholly devoted to school, but men giving only such time as not

fully taken by their main business. The consequence is, that our schools get very little help from them, indeed.

A few minutes' call from the inspector, once perhaps during a term, without, in numerous instances, himself having any special training or experience in teaching, is not, it seems to me, especially beneficial. Their meager reports to the county board are made up from rumor and guesses, and are very frequently unjust.

There is, in fact, no supervision of our common schools, worthy of the name, and there is not likely to be, with officials constituted as now. The local school officers, director, moderator, and assessor, each having his own calling, are seldom paid for doing school work, and very seldom even visit their schools. If, in rare cases, induced to meet as a board, and adopt a set of rules and regulations, uniformity of text-books, courses of study, and arrange for supplies, for the want of supervision, their work may soon fall flat, and everything become confused and mixed up; and each successive teacher, not expecting to stay longer than one term, may well hail the last day of school as a day to be set free from uncongenial duties, and get her pay for her unsatisfactory labor.

As the county boards are now constituted no members are especially employed to visit and supervise the schools, and examining boards have no direct way of testing work actually done in the school-room, or of observing the influence of the teacher's character upon that of the children. All of this most important knowledge that they do obtain, they gather from imperfect reports of inspectors and current rumor. Current rumor, at the best, is very unreliable, so our best workers, the most honest and earnest teachers, are often misrepresented and maligned, while the poorest, with a tact for display, may cheat the public into thinking, for a while at least, that they are superior. A skillful superintendent would be able to discriminate between the genuine and the counterfeit, and encourage honest labor while frowning upon false display.

Examining boards are composed largely of men outside of the profession of teaching—of men who have had but little, if any, experience in school management. Engaged with other pursuits, filled with their own professions, they have no sympathy for teachers, or with the progress of our schools; and in some instances, because the schools are not managed as they were when they were boys, with what time they have at their disposal, they plant themselves in the way of progress; and instead of a help are a hindrance to the advance of education. They cry in a general way against the whole system of education, without being able to point out definitely a single defect or a way to apply a remedy. It is a great consolation to know that such croakers have always been, and that they are not found against our schools alone. The same disposition in men lead them to prophesy the downfall of our republic, which seems to stand firmly enough yet.

The non-professional spirit found among teachers, encouraged by this class of examiners, is, to my mind, detrimental to true progress; and a system which renders it possible for such men to act in such capacities, is defective, however impracticable it may be to advise a remedy.

To practice law, a young man or woman is examined by lawyers; to practice medicine, the candidate must get his diploma from a faculty of doctors; to preach, a person must be licensed by preachers. When a person is licensed to preach, practice law, or medicine, his license is considered perpetual. It is good for all time. He can devote himself entirely to his profession, without

cramming for periodical examinations. Now I think we ought to discriminate between professional and non-professional teachers. Our examiners, who should also be supervisors, should be selected from professional teachers, and only non-professionals or temporary teachers be subject to re-examination. In this discrimination I should consider all those who devote their entire time, summer and winter, or through the year, professionals as long as they do so. I should re-examine only those who make teaching secondary, or a stepping stone to some other calling.

By re-examination I mean an examination on the same branches that a satisfactory examination has been had. Of course, if results obtained in any one study are unsatisfactory, the candidate should either be rejected or re-examined. The work of one engaged in teaching all the time should be examined and a certificate renewed in accordance therewith, instead of on the results of a re-examination, as determined now. Teachers should be encouraged to reach the maximum scholarship required by law, instead of the minimum, and then for their own improvement and for the improvement of their schools, to go beyond.

Instead of forever grinding on the same old nine, the re-examinations might be held on designated studies; on the old ones, one after another till the maximum be reached in every one, then on others, broadening the field. There should be closer sympathy between the examiners and the examined. The examiners should belong to the profession, and the interests of the respective parties be considered identical. A feeling that one party is offensive and the other defensive should never exist. If something akin to this feeling does not now obtain quite generally, I know it does prevail in some places.

As the examining boards are now made up of men holding lucrative positions, or belonging to moneyed professions, they can not and will not frequently meet to consult concerning the best interests of our common schools, or meet with teachers for mutual information.

The lawyer, the doctor, the merchant, or the farmer grasps the questions sent by the State Superintendent, and hastens to the place of examination on the dreaded day and the candidates are nervously rushed through the process of examination, from "nine in the morning till four in the afternoon;" some of them almost distracted by the warnings and re-warnings that the day is passing more rapidly than their work, while they are repeatedly asked to do everything neatly and in good style.

The written examination on the nine branches takes up the day, leaving no time for oral test of ability to explain, or to question the candidates in reference to their habits, motives, plans, etc. Then the papers are looked over and the results obtained in about the same hurry; and the examiners feel that they have performed a sacred duty, if they can reject a number of the would-be teachers, "for the benefit of the rising generation." The spirit begotten by such push on the one side, and anxious worry on the other, is not compatible with good work.

Men devoted to such work, whose tastes and sympathy are in the line of teaching, with time enough for it, and satisfactorily paid for their time, would certainly do better; and a system calling men out of their lines of regular business to examine teachers or superintend schools, with but little or no real practical interest in the same, because otherwise usually engaged, their best thoughts being devoted, of course, to their own chosen avocations, is evidently defective.

It is quite generally conceded by intelligent educators that we took a step backward when we abandoned the county superintendency and substituted that of the township. If all the schools of a township could be united into one graded school, under one head, employing a man well qualified, and paid to devote his whole time to the schools of his township, with power to act, instructing, examining, placing his teachers and supervising the schools, then we might expect good work from the township system. But such a township superintendency as followed our county superintendency was not worthy of our State. It lacked almost every element of success in theory, and it certainly proved itself a failure in practice. The adoption of the present system is, no doubt, a step towards regaining what was lost. It may be possible to do better even than that.

"If graded schools are good for the villages and cities they are good for the country." Why are they not? The needs of children are about the same everywhere. In many of our best village and city schools, men are employed who devote their lives to their management, even to the examination and employing of teachers, laying out their work and supervising the schools immediately, and are held responsible for work done in all grades. Under such supervision schools seem to prosper best. We cannot expect men of other professions to devote any considerable time to the improvement of teachers and teaching, however much of general interest they may have in the cause of education. Successful men in any profession give their first thoughts to their calling; they do not make their chosen profession secondary to some other. Our rural schools need more special devotion to their interests. "Whatever is everybody's business is nobody's business."

I would have a superintendent over a section of country, just large enough to keep him occupied, whether such a section be one or more counties, or a township, according to population; the same being paid by the State, so that the poor may have advantages equal to the best. The educational forces should have a head, and that head should be the superintendent; others should be assistants. He should be a practical teacher, trained in the science and art of teaching, a good judge of teachers and teaching, and alive to the interests of the schools. Examining boards should be composed of such superintendents and the best teachers of their respective sections, for the purpose of examining teachers, holding institutes, etc., the superintendents being chiefly responsible, because required to go into all their schools and become acquainted with work done and desired.

I can not see how we can well divorce the work of examining and superintending. The examination, it seems to me, should be completed in the school-room and in the school district where the teacher is at work. In education, as in other things, forces should be concentrated, not scattered. In the present system examining boards and inspectors have very little consultation or inter-communication.

I have already referred to the fact that our district schools should be graded. It would unify the schools; it would place before teachers a definite work to be accomplished. This plan is working well in other states. It would not be practical, however, without immediate intelligent supervision.

There are many educational factors that are now entirely neglected, or indifferently used, that naturally come within the jurisdiction of a live superintendent. "Armed by statute with all the powers necessary to a proper discharge of his important duties. That county boards are doing the kind of

work most conductive to educational progress, few thoughtful educators will assume." They are everywhere—with honorable exceptions, of course—simply asking questions in arithmetic, geography, and grammar, etc., and hearing candidates read from a text book. Having examined the papers of candidates and assigned a percentage value to each answer, and footed up the results, the examiners deem their duties ended. It would ill become any one to undervalue any proper means taken to determine, beyond a peradventure, whether a candidate has a sufficient knowledge of the branches he shall be required to teach. The possession of such a knowledge is fundamental. And it can not be denied that the determination of this question is one of the main duties of the examiners under the law, as it now stands; but it is not all that should be done, and the system is, therefore, defective.

Our teachers need a knowledge of text-books, but they need also to know how to apply it to the work of awakening mind, and giving instruction. They need to feel that they are a part of our school system, that they are associated with school officers; that their objects are identical; that the character of their schools is an indication of their character, and the reputation of their schools is inseparable from their own reputation. A professional spirit needs more generally to prevail among teachers. An intelligent interest should be created among the parents; a desire to learn should be imparted to children and young people; children should be induced to attend school more regularly, and remain in school through their youth. Most of them leave now at an age when they should begin to accomplish their best mental work. "We need educational mass-meetings in which the people may take part." We should follow the example of politicians in this respect.

Our country school houses need to be made comfortable and healthful, well supplied with light and proper means of ventilation. Every school-room should be supplied with whatever is necessary to a clear understanding of the subjects to be studied. One of the essentials is a good library. How many of our country school houses are properly arranged and supplied? How many are without even a dictionary, black-board, or maps? A country school house well constructed and supplied, or even passably so, is a rare exception.

What is our system doing to bring about desirable results? How many institutes, mass-meetings, training-schools, normal classes, have been held by county examiners and township inspectors? How many lectures have been given in school districts on educational topics by these school-men? How many teachers or schools have been helped by their counsel and instruction? How many of them show even sufficient interest in teachers and their work and progress, to attend the annual, semi-annual, or quarterly meetings of their local associations, thus helping by the magic influence of their presence? How many of these examiners, outside the teachers' profession, respond to the call of our State Superintendent and attend our annual councils here? Those who do certainly belong to the noble few.

Being an examiner, and also a teacher, I think I can look upon both sides of this question. I am in a position to appreciate the criticisms of the people and the teachers, and, in many things sympathize with them. I repeat that I do not arrogate to myself the part of a critic. My topic was assigned and sent to me only a few days ago, giving me very little time for mature deliberation or considerate arrangement in the preparation of my paper.

To summarize, in conclusion let me say: The office of examiner and and superintendent should be united. Only professional, or practical and well trained teachers, should be on our examining boards. The examina-

tion should be oral as well as written; and it should include the observation of the teacher's work in the school-room, and his influence in the district where engaged.

Professional teachers should not be subject to periodical re-examinations on the same branches. This system is unprogressive and narrowing in the extreme. Something like the Chautauqua plan of reading and examination should be encouraged. Only irregulars should undergo the practice of re-examination. A certificate once satisfactorily obtained, by a teacher in perpetual practice, should hold good in any part of the State, or renewals should be determined mostly by the absolute success of the teacher.

We need a general revival in our common schools, a supervision which shall be felt by teachers, parents, and children; our high-schools and colleges, and our country would be better for it.

DISCUSSION OF THE PRECEDING PAPER.

CLARK STANTON said:

There are several points to which I would call the attention of the Association, some of them are not so much the defects of the law as supplements to it, which experience has shown would further the ends of the statute in question.

1st. I would abolish the authority of the Secretary of the board of school examiners, to grant special certificates, or restrict it, within the narrowest limits, by the most rigid and strictest fixed rules, and in its place authorize the board to issue certificates for particular schools, and for six months, but would not allow it to be granted to the same applicant more than twice.

I think almost all boards found it necessary, at least in the first year of the present law, to license teachers for certain schools, that they were unwilling to send out as full-fledged teachers, authorized to take any school that good fortune or some favoring friend might offer them. This difficulty was overcome by an obvious violation of the whole spirit of the law, and many times the board refused a certificate, with the understanding that the secretary should, after the examinations were over, grant a license for the particular school.

Again, young girls, bright, intelligent, and ambitious, come to the spring examinations, pass creditably and receive a certificate. They teach a small school during the summer, succeed well, and, with the assurance born of youth and inexperience, imagine themselves prepared to instruct and manage a more difficult winter school. Too often this is a failure, and the board of examiners are blamed for licensing inefficient teachers for the more difficult schools. A limited certificate would do away with all this difficulty.

I would have the applicant for a limited certificate, state, in her application, the township, the number of the district, number of scholars in district, branches to be taught, and why she makes application for this particular school.

In the general examination, if a teacher of some merit shall fall below the standard in some particular branch or branches, or if the board have doubts as to her ability to manage a difficult school, she may be informed of the refusal to grant a general certificate, but that she may make application for a limited certificate, under the regulations mentioned above; and if the

secretary of the board shall be satisfied that there will be fair chance of success, he shall issue the certificate.

You may say this has too much formality, too much red tape. Possibly, but I do not think so; the trusts committed to the charge of the teacher are too important to be lightly dealt with; and I would guard the approaches to this most honorable and responsible occupation so carefully, that incompetent teachers should be reduced to the minimum.

But on the other hand, I would not weigh every doubt as final against the applicant. We all know that some most unpromising candidates turn out much better than we expect, and far surpass some of whom we had greater hope. No doubt some of us remember, when we, with beating hearts, were knocking for admission to our chosen profession; and I do not doubt, that, if our examiners had weighed every doubt against us, some of those before me, who have made proud records, would have been forever shut out from the teacher's chair.

A second point I wish to call attention to, is the proper recognition of superior work in whatever grade it may be done. One year ago, in a meeting of county examiners, I urged that great ability and superior skill in teaching the primary branches, should be recognized by issuing a second and first grade primary certificate. Some of the members of that body developed the most astonishing capacity for misunderstanding my proposition, and held up their hands in holy horror, at the idea that a teacher should have a first grade certificate who had been examined only in the common school branches, as they indignantly termed them.

Now to my own knowledge, there are to-day, teachers carrying a third grade certificate, who are doing as good work in their grade, and consequently as honorable, as any teacher in our high-schools, of which our State is so justly proud. Yet, so far as public recognition goes, they are classed with the girls and boys, who have just squeezed through their examination and are struggling with the difficulties of their first schools. It is this class of worthy teachers, who are doing honor to themselves, and noble work for the schools, that I would recognize by distinguishing between them and the tyro.

My proposition then is this: That the Superintendent of Public Instruction authorize the board of county examiners to issue to deserving primary teachers, of established ability and success, instead of the ordinary third grade certificate, a second and first grade primary certificate, with the same rights and privileges as the ordinary second and first grade; that the teacher to be entitled to this second grade, shall not only pass a most rigid examination in the primary branches, but be acquainted with and use approved methods of instruction, shall have taught, at least one year, with ability and success; and for a first, at least two years. I would make these honorable degrees dependent on ability and achieved success in the primary work.

My object in this is not only to reward merit, but to offer an inducement for our primary teachers to strive after higher attainments, with the full assurance that their success will be properly recognized.

Under the present system, we have, year after year, the same teachers taking the same grade that they have taken years before; and this must remain so. The conscious teacher must give her time and energy to the branches that she has to teach, instead of poling up and cramming for an examination in philosophy, algebra, and geometry. To-day the primary teacher is instructing and forming the mind of five-sixths of the future

citizens of the State of Michigan. About this part receive no other instruction. Then, I submit, it is time that it be recognized in fact as well as theory, that the primary teacher shall fit herself for her particular work, no less than he who, nominally, occupies the higher position.

If some such plan as this be adopted, I would urge that any teacher who could not advance her grade after two certificates had been received, should be dropped from the list as unworthy to hold a place in the ranks of a progressive calling. I hold this to be true, that any teacher, be he high or low, who can not teach a better school this year than last, is unworthy to be in the school-room.

I have but a single point further to urge and I will relieve your patience. It is in the same direction as the former, to stimulate higher work in our district schools, and to show those who make the effort and succeed, that their endeavors are properly appreciated.

It is this: That when a teacher shall have received a first grade certificate, either the regular or the primary, and shall have taught successfully during its continuance in force, he shall be granted either with or without further examination, at the option of the board of examiners, a certificate, to remain in force as long as he shall teach in the county wherein it was granted. I would make this the highest position in the gift of the county board, and so honorable that it would be worthy the ambition of the most aspiring teacher. High, honorable, and rare, because it could be attained, only by long years of continuous and successful teaching.

I will make no apology for my poor plea for the teachers of our common schools. It is to their hands that the State must look for the proper instruction of the great majority of its future citizens. Upon their work depends, in a large measure, the character of our Peninsular State; and may the time soon come, when this great army of teachers, now almost unrepresented on the floor of this, our State Convention, shall be recognized as doing a work, though humble, as honorable as that done in the most favored high-school, college, or university.

MR. WICKHAM said:

I believe, as a rule, since our present system has been in force, the county examiners of the State, have been elected with special reference to their real ability; but I do know that there are notable exceptions to this rule, and from what I know of the class of men who have the election of our county board, I have good reason to believe that too soon wire pulling and trickery will be the chief qualifications of a county examiner. It is a well known fact, that in every town there are a few chronic office seekers, who have no worth which would commend them to any office whatever; and as the office of school inspector has generally been considered unimportant, these men are usually elected to that position, just to stop their clamor. I have now in my mind an ex-county examiner, whose re-election was defeated owing to his pronounced temperance views; and the man elected in his place, was, as I am reliably informed, obliged, by a school board when contracting with them, to sign a special contract, agreeing not to use intoxicants during his term. The present system does well enough, but let us have a change in the manner of electing our county board.

EFFECTIVE ENERGY IN TEACHING.

BY U. W. LAWTON.

Nations are known to have their distinctive characteristics. The French are vivacious and polite; the Germans, phlegmatic; the English, stubborn; the Scotch, grave; and the Irish, mercurial and witty. But the mingling of these different peoples in our country, can not be said to have produced a type of character which can be called American. We occupy perhaps, too great an extent of territory to make such a result possible. The colder and more rugged north not only invited a different class of people from those who settled the sunny south, but necessitated a different development of character after the settlement was made. In New England we have the shrewd, ingenious, self-reliant yankee; in the middle and gulf States, the fiery, and chivalrous southerner; in the west, the so-called western man, of great undertaking, and ceaseless energy. The vast extent of territory, the richness of the soil, the rush of immigration, the rapid development of resources, and the hope of sudden wealth, all tend to stimulate his ambition, and to cause him to rush on in his enterprise, regardless, often, of his own reputation, or the rights of others. Indeed, there has come to be among the people of the extreme west, a kind of glorification of energy and smartness, much to the prejudice of their morals.

Dickens observed this when he was in this country. In his American Notes, he says: "I have held the following dialogue a hundred times: Is it not a very disgraceful circumstance, that such a man as so and so should be acquiring a large property by the most infamous and odious means, and notwithstanding all the crimes of which he has been guilty, should be tolerated and abetted by your citizens? He is a public nuisance, is he not? Yes, sir. A convicted liar? Yes, sir. He has been kicked, and cuffed, and caned? Yes, sir. And he is utterly dishonorable, and debased, and profligate? Yes, sir. In the name of wonder then, what is his merit? Well, sir he is a smart man."

The Rev. Joseph Cook says: "I once told this anecdote to a learned German, who replied, bringing down his hand upon the table with an emphasis that made the glasses ring. That word smart will break American's neck yet, unless you break the word's neck."

Dickens was a shrewd observer of character, and many another, whose observation is less keen, will attest the fact that this energy, this indomitable ambition, this determination to succeed has not always been backed by eminent abilities, or moral worth. It is much to be regretted that forwardness and self-seeking should be characteristic of any, but most of all, the teachers of youth. That there should be any, who are more fond of parading their small attainments before the public, than of hard and honest work in their chosen profession; any who will condescend to use the time and energy, which they should give to study and to preparation for their daily duties, to gain the influence of political leaders, or religious denominations, in order that they may secure a position for which they are not fit. They forget that the teacher should be known for his scholarship, for his ability to teach, for his ardent devotion to his profession, for the schools which he builds up, for the scholars whom he instructs, and for the example of manly dignity which he ever sets before his pupils, and not for his noisy prominence at teachers'

conventions, nor for his bold impudence in elbowing aside his betters, nor yet for his success in creating mischief in the faculty of which he may be a member. Those who set a high value upon these latter qualities have certainly mistaken their calling. They should rather join the ward politicians, for with them they would find full scope for their wire pulling proclivities.

There is, however, a public work which must be done. Institutes for the instruction of teachers, must be held throughout the State, and all will agree that they should be conducted by the very first talent in the profession, by those who give themselves wholly to a single subject, and who have gone a long way towards the mastery of that subject. In the institutes of Massachusetts, we have listened to Agassiz, and Guyot, and Barnas Sears, and Lowell Mason, and Colburn, and others who have distinguished themselves in some especial branch of study; and if the institutes of Michigan are to be in the highest degree successful, if they are to command the respect of the people, and the teachers, who support them, and become the means of improving the methods of teaching throughout the State, they must be conducted by those who, in scholarship, and ability to teach, hold the very first rank.

The school superintendents, burdened as they are, with the classification and discipline of thousands of children, and directing the labors of a large corps of teachers, if they do their work thoroughly and well, can not, with reason, be expected to do much more. There is a limit to human endurance, and he must indeed be an extraordinary man who does not find, in the superintendence of a large system of schools, enough to tax his energies to the uttermost. If, however, he should think it enough to organize his schools and then let them run like a clock that has been wound up, he may go and labor where he pleases, provided his school board will consent to it. But it is plain that such a one is neglecting his duty, that he sacrifices his own especial work in order to undertake that, which others, who are less burdened than he, could do much better. He would unquestionably accomplish more by devoting himself wholly to his own schools, striving in every way, not only to improve the lower grades, but to build up the high-school, and prepare able young men for the university, and thus be the means, as some of our superintendents have already been, of sending out over the State, teachers and superintendents, who are thoroughly prepared for their duties. And can it be questioned that they have really done more for the cause of education, than they could have done if they had undertaken a divided work? Surely they can not be charged with a want of energy, or with indifference to the results of their labor.

The history of education in our State during the last twenty-five years, supports this view. The institute work has been done, we believe, chiefly by especial teachers—by the professors in the Normal School and in the University. Some superintendents, it is true, have been prevailed upon to engage, occasionally, in the work, but not enough of them to invalidate the position that we have taken, nor with such results that they can offer, as we think, a stronger claim to effective energy in the profession than those who have taken the other course.

Much is said in these days about improved text-books, new methods of teaching, different courses of study, different methods of school organization and discipline, and it is important that teachers should be well informed on these subjects, in order that they may be able to exercise good judgment, and not waste their energies in trying over again what has already been put in practice and condemned.

Through ignorance of the past, many things strike one as novel and meritorious, which have long since been found worthless. There, is too, in some, an innate fondness for novelty, for something different from what the experience of the past has proved to be useful, and they rush home from the last convention which they have attended, in order to put in practice, at once, suggestions which those, who are better informed would instantly condemn. How much time and energy are worse than wasted in this way, and often too by adopting, without reflection, whatever is found in teachers' journals, no matter how absurd it may be. These faults, when they exist in a teacher, are sufficiently grave, but in a superintendent, who directs the labors of a large corps of teachers, they are infinitely worse. Nothing will so completely destroy the efficiency of a system of schools, as to have the efforts of the subordinates constantly misdirected, by a fickle, incompetent superintendent. Here as everywhere in our work, we should keep to the golden mean. There should be neither a blind and bigoted adherence to past usages, nor a reckless running after novelties; we should be willing to investigate whatever seems to have merit, and decide carefully after mature deliberation.

There is still much discussion of the claim which high-schools have to public support, and it has seemed to me, that there has been, with some of us, a lack of energetic efforts to build them up. It is hard, I know, to stand against school boards, who wish to destroy them, and who have absolute power; but there are occasions that call for self-sacrifices, and when they come, we should meet them with firm resolution. It is a matter of regret, therefore, that some prominent teachers have allowed themselves to use in public such temporizing statements as these: "It is a question whether we have the right to tax the people to maintain high-schools," and "It should not be our main object to build up high-schools," &c. True, it should not be our *only* object, but it is a very important one, one that ought, by no means, to be neglected, and he who is incompetent or unwilling to do it, ought to step aside, for we can not have the best primary schools without them. "The history of education shows that all improvement works from the top downward, and not from the bottom upward."

Says Philbrick: "The common school is always feeble and inefficient where high-schools and acadamies are wanting." "Experience has proved," says Francis Adams, "that elementary education flourishes best, where the provision for the higher education is most ample." "The primary schools of Germany take the very first rank, because her gymnasia have always been accessible to all classes." "Harvard College, when it was little more than a high-school, was, for a long period, the main-spring of success to the common schools of Massachusetts." Says Huxley: "No system of education is worthy the name of national, unless it creates a great intellectual ladder, with one end in the gutter and the other in the university." Says T. D. Maurice, in his book entitled Eustace Conway, and his views are endorsed by J. Stuart Mill, and by Prof. Browning, of Cambridge University, England, and I think will be accepted by all intelligent people: "All experience is against the notion that the means to produce a supply of good, ordinary men, is to attempt nothing higher. I know that nine-tenths of our educated men must be hewers of wood and drawers of water, but if I train the ten-tenths to be so, depend upon it, the wood will be badly cut, and the water will be spilt. Aim at something noble; make your system such that a great man can be formed in it, and there will be manhood in your little men of which you did not dream."

If there be yet any doubt as to the claim of high-schools to our most energetic support, we have the authority of Edward Everett, the greatest of American scholars, who was educated in the public schools of Massachusetts. "I will thank any person," says he, "to show why it is expedient and beneficial in a community, to make public provision for teaching the elements of learning, and not expedient nor beneficial to make similar provision to aid the learner's progress toward the mastery of the most difficult branches of science, and the choicest refinements of literature."

In addition to the testimony of these distinguished authorities, it may be said, that the high-school is the means of discovering and developing the best talent in the country. It offers to the gifted poor an opportunity to rise to distinction, and the history of the past shows that they have not neglected this advantage. In our republic, those who have become the most distinguished, and have rendered the greatest service, both in peace and in war, are not those who have come from the homes of the wealthy, and have been trained up by costly private instruction, but those who sprang from a lowly condition, and rose to eminence by the aid of free schools. If they had been deprived of the advantages of the higher instruction, while oppressed by poverty and the ignorance which surrounded them, their motive powers would have remained dormant, and their services would have been lost to mankind. Schools of the higher grade are, too, the best means of preserving that republican equality which is so desirable in our country. With the facility which they offer for the humble to rise to distinction, there is little danger of an over-riding aristocracy. It is, therefore, sufficiently evident that it is the duty of all to resist every effort to lower the standard of common-school education, to destroy that broad and liberal system of public instruction, which was established by the founders of our State, to break the link which connects the primary schools with the university.

But a system of education, however perfect, will effect but little, unless it is carried out by able, efficient, energetic teachers—by those who do not remain content with their early attainments, but strive, day by day, to add to their store of knowledge—and this not by the study of books alone, but by mingling with society, by associating with men of business, by keeping the sympathies alive to all that interests the masses, and by resisting, in every way, the narrowing influences of their occupation, which, if allowed to have sway, will, in the end, produce a Squeers or an Ichabod Crane. It is here that our energies too often fail, and I know, that when a teacher comes home at night, wearied by the labors of the day, jaded and worn out by the vexatious cares which are incident to his profession, it requires great resolution and self-control to answer the demands of society, or sit down in the library to earnest study; and still more, to continue the practice term by term, and year by year. But he must do this, or failure, to a greater or less extent, will be the inevitable result.

The teacher should be a man of broad culture. He should know more than is contained within the narrow limits of text-books. In botany he should not be content with the definitions, descriptions, and poor illustrations of the manual; he should be able to show his pupils the true structure of the living plant, its cells, its spiral ducts, its protoplasm, and formed material, the circulation of its fluids, and the crystals of matchless beauty, that lurk within its tissues. Is he teaching physiology, he should be able to show his class the structure of all the organs of the body, of the brain with its

capillaries so minute, and so abundant, of the nerves, and the ganglia, of bone, and muscular fiber of the kidneys, glands, liver, stomach, and lungs. He should be competent to exhibit to them the layers of thes kin, and the spiral sweat ducts which perforate them, the villi of the intestines, and the various forms of epithelium. Is he teaching the ancient classics, he must be able to impart something more than a knowledge of the forms of words, and of the structure of sentences. He should make his pupils acquainted with the manners and customs and daily life of the ancient Greeks and Romans, and awaken in their minds a just appreciation of the best efforts of their orators and poets. Is he called upon to give instruction in his native language and literature, he must teach something more than technical grammar, or the definitions and statements and brief criticisms of an ordinary text-book on rhetoric. He should aim to form the literary tastes of his pupils by careful study and criticism of the masterpieces of the best writers and speakers. He should be competent to lead them forth into the fields of literature, and show them where they may gather its richest fruits, its fairest flowers; where they may rove, and read, with the greatest pleasure, and the greatest profit.

It is to teachers like these that we must look for the noblest work that is done in our profession, and it is to them, also, that we must look for improvement in the art of teaching. Surely it can not come from the illiterate educational crank, to use a word of the day, nor from his servile imitators. Those who occupy the hights of learning can best survey the field of progress, and point out the better ways. It is to such that we are indebted for the great improvement in methods of teaching, and of general school management, which has been made in the last half century, and it is to be hoped that such will be the culture, and zeal, and effective energy of teachers, that the path of learning will continue to grow easier and more inviting, so that the youth of our State, of every class and condition, may be induced to enter upon it; and that no one hereafter, like the poet Gray, sitting amid the tombs of this or succeeding generations, will lament over their undeveloped talents.

DISCUSSION OF PRECEDING PAPER.

E. A. STRONG said:

The discussion of a theme of this character, embodying or implying a proposition which commands universal assent, is somewhat a misnomer. One is liable to fall into a feeble confirmation of what has been forcibly said in the paper discussed. The essay just read has left me somewhat in the state of mind in which an enthusiastic supporter of Mr. Burke found himself, who, after listening to the great orator, instead of making a speech, could only cry out, "I say *ditto* to Mr. Burke; I say *ditto* to Mr. Burke."

Upon the early train yesterday morning on my way to the Association, I began in a drowsy way to turn this theme over in my mind, and to try to outline the probable features of this paper. The subject is plain enough, but what is the point of view? What the emphatic word? *Energy*, probably My friend wants to see more energy in teaching, more "capacity for doing work." And so do I, and so do we all; our theme then is, teaching with power. How much half-hearted, nerveless, vapid, vacillating work there is

in teaching! How few of us teach with the enthusiasm of men who believe in themselves, believe in their methods, and give themselves up wholly to their work! How few teach as in presence of the noble army of the great teachers of all ages, teach as holding an authentic commission from the State and from humanity, teach as in full view of the goal, the great end of our work! And so we say, let us teach with power—teach as having authority.

But looking at our theme again, this view of it seemed somewhat too obvious, a trifle over true. Perhaps my friend is thinking of the difference between potential and kinetic (or, as he says in a more literary way), effective energy. The emphasis, then, lies on *effective*, and the demand is for the conversion of potential energy—mere capacity for doing work—into active energy. The teacher often seems like a storage battery, into which the great forces of society—the dynamos of the age—are pumping power year after year, but in whom effective connections with actual work seem to be wanting, so that this power never really gets itself used. Ah! this is especially a lesson for us old heads in the cause. Some of us have climbed into good places—we have "energy of position." But how little effective energy! Who feels our power? How often the teacher sits, like a bent spring, behind his desk, while the work drones on and the machinery of the school hums around him, impelled by forces from the past, and we wait in vain to see the spring released, and the force set free which shall control and give efficiency to all this machinery. Oh! for effective energy in teaching—for energy that energizes.

But perhaps this too, may not be the precise point of our theme. It may be energy in *teaching* to which our attention is particularly to be drawn. It is so often urged that a teacher should be ready for every good word and work, that he permits himself to become a sort of factotum for the community, or he dissipates his energy in the multifarious activities of the people among whom he lives, or some of the many side issues of his work. He is energetic in business, energetic in politics, energetic in social life, energetic in reforms, energetic in collecting statistics, energetic in school discipline, but has no energy left for the work of teaching. He is like a physician who is successful in everything but in healing disease, like a soldier who can not fight. It can not be too often said that the main business of a teacher is to teach, and that a failure here is a capital failure.

Such thoughts as these ran through my mind as I reflected on the subject assigned for this hour. But the paper is now before us. From it we learn that we should emphasize, not one, but all these points. The paper, we must all agree, is a forcible and much needed plea for more enthusiastic and fruitful work.

But instead of going over the points of the essay in detail, I will content myself with a brief statement of what appears to me the principal cause of the apathy and deadness which we see in the educational field. We work too much by ourselves, too much as units, seeking such results as seem to us good, and not as parts of a great whole moving forward to the accomplishment of large aims. We are like sheep feeding upon the hillside, each one heading in his own direction, rather than like sheep following a master and all facing the same way. Teachers, like other men, are mostly commonplace people, and depend for stimulus and enthusiasm upon those around them. Only the rare man is self-moved; most of us feel the necessity of moving in a current. But where are those who shall trouble the waters for us? Oh! for some

influence or agency to produce a strong and steady current toward some great educational end. To a degree our Association supplies this want, and, year by year, as we come to its sessions, we feel our energy renewed, we throw away our false measures and standards, and we take up our work again in a larger and more enthusiastic spirit.

REPORT OF COMMITTEE ON INSTITUTE WORK.

I. Why Change.

1. Old teachers tire of listening to the same theories. Our teachers ought to feel the force of requirement in this matter. Teachers, like other workmen, and students, do little more than that which is required of them. Hence, teachers should be asked to re-produce what they hear.

2. Young teachers need more drill than they can get at the ordinary institute. Most of our teachers receive no other professional training than that given them in our institutes. This is entirely inadequate, especially in the case of the young teacher.

3. The people do not see the results. There is fifty years' difference between the average methods employed in our union schools, and those used in the district schools, in favor of the former. Our institutes apply principally to our district schools; hence, the people feel that there ought not to be this difference in methods.

4. The present system is unsatisfactory to institute workers. Those who have been called upon to present substantially the same syllabus that the institute had received only a year previous, are ready to support this position.

5. Our present system of institutes does not enable us to keep pace with some of the other States in professional training. Indiana furnishes her teachers from four to six weeks' normal instruction each year, each normal closing with one week's institute. Can Michigan hope to equal Indiana with only one week of work? These Indiana normals are partly sustained by tuition; still they are well attended. Kansas furnishes to her teachers each year, four weeks of normal institute. Can Michigan afford to be behind Kansas in this matter? It will not avail for men to argue that Michigan excels in her great University, her Normal School, and her many excellent high-schools; for these do not furnish the needed professional training to our district teachers.

II. Suggestions For The Better.

1. At least two weeks' Normal Institute where the funds will permit. We would gladly recommend a four weeks' session; but we are aware that our present institute fund would fail to bear us out in such a measure. If Michigan were a wealthy State, like Wisconsin, then she could use $100,000 per annum, and support four State Normals, instead of one; and she could furnish the teachers in most of the counties with at least a two weeks' Institute. Would it not be economy to be more liberal towards the district schools? Would not such a course obviate to some extent the necessity for

building and maintaining so many institutions, whose existence is made necessary through ignorance and immorality? But why introduce such a thought here? The secret of having a good school is in having a good teacher; and a good teacher must be well trained in her work; and this training must come largely through the County Institute, or solely through experience; the way last mentioned is a very expensive one to the people, and is also disastrous to the time and interests of the children.

2. Let at least half the time be given to Normal-class work. Devote the other half of the time to general exercises. This would give time to introduce and discuss the themes pertaining to our work of a more general character; and also furnish relief from constant class drill.

3. Two good instructors (one or both from outside the county) are enough. Two good men, who shall be on the ground from the first to the last, know all of the circumstances. The Institute recognizes them as the instructors, and is not constantly looking for somebody better. Two can do the work best, because one knows just the ground that the other has been over; and hence, the danger of repetition is avoided. We think that in some instances, it is a wise plan to select one of the instructors from the county in which the Institute is held; but we would recommend that no man be selected for Institute work within a county, who, in the judgment of the Superintendent of Public Instruction, is not qualified to do institute work outside the county.

4. Let four evenings of each week be devoted to professional and popular lectures. Let the popular lectures predominate; for it is through these that the masses of the people can be reached. Make these evening lectures enthusiastic and entertaining.

5. Good local committee. More depends on the efficiency of the local committee than any other feature of the work. We think good committees can be secured in most cases, through good pay. We speak the sentiment of institute workers, when we say that we would rather have a rousing institute and moderate pay, than good pay and a poor institute; and an institute can not be a success in the hands of a poor local committee.

6. Give the full time to the work. With the right plan, there is no need of devoting any of the session-time to organizing, and enrolling, and classifying. Let the programme of the institute, indicatng its different divisions, be published, and circulated through the county in time for every teacher to have classified herself. As the teachers enter through the door of the room, give to them a programme and an enrollment card, and ask them to fill them out and bring them to the conductor at the first change of the exercises; that done, they can be assigned to their respective places without any loss of time.

7. Begin at 9 A. M., on Monday, and close at 4 P. M., on Friday. They may not all be there, but that will be the case, even if the institute were not to begin until the next morning. Let it be understood that the institute will begin promptly on time, that the class record will begin with the first recitation, and that this record will have a bearing upon the coming examinations; and we think they will be there.

8. Let methods of teaching and of school government be themes for special consideration. So much depends upon these two themes, that we feel we can not pass them in common with the rest of the general subjects which claim the attention of an institute. Don't be satisfied to tell the teachers about these themes; but require them to reproduce the thoughts given them. Give them an opportunity sometime during the institute, to express *their*

views and difficulties (especially difficulties), upon the subject. Test them, correct them, and see that they are sound upon this theme.

9. Very little, if any, common school work in institutes. We wish it to be distinctly understood, that is it our opinion that in the coming Normal Institute, the "how to teach," and "how to govern," and "how to manage schools," shall be the exclusive business of the class part of the sessions. There will not be time, even in these, for academic work. They are to be, strictly speaking, "Professional Training Schools," qualifying the teachers as well as possible for the work in the common schools.

10. Divide institutes into four divisions for two instructors, and into two divisions if there is only one instructor. In the first case, let two of the divisions be studying while the other two are reciting. Occupy each third hour with a general exercise. The institute need not be carried over the whole programme every day, if it is so long that this can not be done without crowding; but, for example, begin on Tuesday where we left off Monday. This will give time for thorough work, though the number of recitations may be fewer.

11. We recommend that the State Educational Department prepare a course of study for use in the institute. We think that it would be well to prepare it for at least four years. Then, in preparing a programme, one year of the course could be thrown in each column, making four columns. A teacher, upon enrolling in the institute, could elect his column of the programme. A four-years' course of study, arranged in this way, would furnish the most zealous teacher all the work he could do in that length of time.

12. We recommend that a class record be kept. Would it not be a good plan to make out a report at the close of the institute for each member, giving class standing, attendance, and so-forth; and that, through the recommendation of the State Superintendent to the County Board of Examiners, these reports have a significant bearing upon the examinations.

III. Why We Think a Plan Similar to This Would Result in Improvement.

1. It is reasonable. We are so clearly convinced of the practicability of the foregoing report, that we leave it for those opposed to show wherein it is not sound.

2. It is proven in other States. Robert Graham, State Superintendent of Wisconsin, says that in most of their counties they hold a two weeks' institute. Superintendent W. W. W. Jones of Nebraska, says: "I find that a term of two or three weeks of sharp, clearly defined work, with earnest, well posted instructors, accomplishes great good." John W. Holcomb, Superintendent of the State of Indiana, says: "We give to each county from four to six weeks' 'Normal,' and one week Institute. I consider both indispensable." We see by consulting the course of study for the Kansas Normal Institutes, that the teachers in that State are furnished four weeks' Normal Institute instruction every year. Hon. H. C. Speer, Superintendent of that State, says that the results are exceedingly gratifying.

3. The same plan, substantially, has been tested in our own State during the last year. So far as we have found out, upon thorough investigation, results have been much more satisfactory to all parties concerned than under the old plan. Prof. R. W. Putnam, who conducted a two-weeks Institute in Cass county, thinks it the most successful of any institute in which he has

labored in Michigan. He also thinks we should not try to cover the whole ground, even in two weeks. Prof. Pemberton, of Vandalia, who worked in the same institute, says; "I find no one dissenting from the statement that it was the best and most profitable Institute ever held in this county. L. H. Glover, editor of the Cassopolis "Vigilant," says: "The Institute was a grand success. The interest was kept up to the last, and the attendance was as large the second as the first week. In fact, the conductor wished to close one day sooner than they did, but the teachers, by an almost unanimous vote, refused to have the institute cut short, even one day." C. C. Nelson, P. M. in Cassopolis, where the same institute was held, says: "We have always looked upon the short sessions (and we know something about them), as nice literary entertainments, but of no real practical value to the teacher; but, in the institute held here last fall, which was two weeks of real, practical work (and three weeks would be better), there was real good done in the advancement of those for whom the institutes are supposed to be held, to-wit: the teachers."

Prof. I. N. Demmon, who conducted the institute in Lenawee county, says: "My Institute at Tecumseh was for two weeks; and it was generally thought to have been very successful. I had good help, which is almost indispensable, where you break an institute into sections for class-room work. There is no doubt in my mind that this is best for the great majority of our teachers; but it requires good management, and good teaching. The old-time institute, where teachers got together to listen to funny stories and smart speeches, and have a good time for a few days, was entirely a different affair. Many teachers have not yet comprehended the idea that the institute is a school. A longer time than four or five days seems necessary in order to enforce this idea. The old traditions die hard; and it will take time to bring the mass of the teachers up to genuine work in the institutes; but we must continue to labor to that end, and I regard the longer time especially advantageous thereto."

Prof. A. E. Curtis, of Adrian, who helped in the same institute, says: "The teachers expressed themselves as greatly pleased with the plan." Prof. D. A. Hammond, of Tecumseh, says: "It was, in my estimation, the most profitable and successful institute ever held in Lenawee county. Attendance about 200; one hundred who attended the entire season, and more the last week than the first. I think the teachers in the county would vote solidly for an extension of the time of holding institutes." J. N. Schoolcraft, attorney at Tecumseh, was a daily visitor, and considered the methods used, the most complete to accomplish the desired ends, of anything he ever saw, and the long session indispensable to the end sought. S. C. Stacy, director of Tecumseh Board of Education, says: "I am heartily in favor of the 'long session' plan; it enables the instructors to combine both Institute and Normal work in the programme of instruction."

Very respectfully submitted,

J. G. PLOWMAN,
Z. C. SPENCER,
H. R. PATTENGILL,
Committee.

GRADING OF THE DISTRICT SCHOOLS.

BY DANIEL PUTNAM.

It is reported that in the olden time a certain judicial officer, whose character and integrity were not above suspicion, determined, for once at least, to act justly in order to save himself from the troublesome and often repeated visits of an importunate suitor in his court. It is possible that we may be suspected of a disposition to imitate, consciously or unconsciously, the mode of procedure adopted by the mis-used Hebrew widow. I am somewhat more than half inclined to think the district school occupies, in the educational field, a position similar, in some respects, to that of the lone lady in the department of Jewish justice. At any rate this district school, in these days, comes with great frequency and with some importunity, before all gatherings of teachers,—county, state, and national,—and before all legislative bodies, and even before the august congress of these United States. Put out of doors and out of court it is sure to be back again before the sergeant-at-arms or the sheriff is fairly seated.

The real educational problem, thrust by force of facts and figures into the very face of the Nation, and demanding some sort of solution, is the common or district school. The demand is emphasized by crowds of native born citizens pushing their way to voting places with ballots which they can not read; and by floods of foreigners overflowing the fertile prairies of the newly opened territories. Even in Michigan this is *the* school problem, which more than any other, or indeed all others, remains to be examined, and, if possible, to be put in the way of some fit and speedy solution.

As helping toward the working out of this problem we are to consider first the grading of the district school. Can this school be graded? If so, how much and by what means?

The grading, so-called, of any school, managed and taught in a single room and by a single teacher, can be little more or little less than proper classification. For certain exercises and for some instruction of a general character, the lower classes may be grouped together and designated as primary grades. In the same way and for the same purposes, the higher classes may be grouped and designated as grammar grades or by any other name preferred. All this, however, is merely classification, by whatever name it may be dignified.

It may also be a matter of convenience in arranging the work of such a school, to place together a number of studies and exercises, which are to be pursued by pupils at the same time, and call these the special work of a grade. It really is of very little consequence whether we use the term classify or the term grade. The end to be attained is, that such a state of affairs may be secured, that the pupils of a school shall follow, from the beginning of school life, a regular and consecutive course of study and instruction. To reach this desired end several things seem to be absolutely necessary. The most essential of these will be briefly considered:

1. A regular and authoritatively prescribed course of studies. At this point I am not inquiring what this course should be. That question belongs elsewhere. Here I am only affirming that there must be *some* course. Without this no satisfactory classification can be made in any school. More-

over, this course of studies must be of more binding force both upon teachers and pupils. It must be, not merely a recommendation, but a command to the school. Scholars, with only such exceptions as a wise administration of law will always provide for, should be required, and not advised, to pursue the prescribed course in consecutive order. Teachers should be held to the course as rigidly as pupils, and should not be permitted to introduce, at pleasure, new branches of study, or to turn the whole energy of the school in the direction of certain favorite studies of their own.

2. Carefully kept records of the progress and standing of pupils. This would be of great importance even if the same teacher were to continue in the same school with nearly the same scholars, for a number of consecutive terms, or for a number of years. With the frequent change of teachers it becomes an absolute necessity. If a fair classification were once attained it could not be kept up in the absence of such records. These should be made as imperative as the course of studies, and the keeping of them in good form and condition should be enforced, if need be, by forfeiture of wages on the part of the neglectful teacher.

3. An intelligent appreciation by parents, school officers, and teachers of the advantages to be derived from a regular course of studies and from proper classification.

Machines, however excellent, do no not operate or direct themselves. There must be motive power and directing mind in order to secure valuable results. Without water and fire and the guiding hand of the engineer the mightiest locomotive is worth no more, for practical service, than the toy engine which the child pulls along with a string.

Paper courses of study and blank record books will not grade a school or mark the progress of pupils. They are important and necessary instruments, but they are only instruments. Behind these must be the living force of an earnest conviction that some valuable, practical results can be attained by their proper use, and a determination that such results shall be secured.

Such a conviction can not be called into existence by a command; it must be created, or produced by the slow process of very gradual growth. In many places the seed has been planted from which it will spring up, and in some favored spots, it is to be hoped, germination has actually begun.

4. And finally under this head, Such an organization of schools and school supervision that it shall be possible to have competent officers with sufficient authority to establish courses of study, and to grade the schools.

This is a vital matter, and just here the Michigan public school system has one of its most serious defects. The unit of our organization is the rural districts, limited in extent to nine sections of territory. In respect to most matters this district is independent of any higher authority. Its board has power, with a single unimportant limitation, to determine what books shall be used and what studies shall be pursued in the school.

This board, and this only, can establish a course of studies for the school, can command proper classification and insist upon the necessary records of progress and standing. The number of such ungraded districts in the State, according to the report of 1882, is 6,191. Consequently we have that number of "free and independent" school commonwealths, and may have exactly that number of different courses of studies, or that number of unclassified and chaotic schools.

The boards of these districts consist each of three members, making an

army of 18,573. The concurrent action of so many men and women would be necessary to secure uniformity of school arrangements throughout the State. Such uniformity, over so wide an extent of territory, with conditions so varying, is certainly not attainable and probably not desirable.

Putting aside, therefore, any consideration of the State as a whole, let us inquire about concurrent action in a county. Some single county, taken as an example, will present the problem in the simplest form. The average number of townships and cities in the counties of the State is fourteen (14) and a small fraction, which, for our present purpose, may be disregarded. Ingham county happens to report just this average number, and will, consequently afford a convenient illustration. The number of districts in the county is one hundred and thirty-five (135). As nine of these districts have graded schools, the number of different persons in the boards will be, at least, 432. If, in order to present the problem in the simplest possible form, the graded districts be omitted in our calculation, we still find 378 district officers whose concurrent action must be had to obtain uniformity of school regulations and management in the county. The county board of examiners can, without much labor, estimate the probability of securing such action.

If in despair of county uniformity we come down to the township having about the average number of districts, it will still be necessary to obtain the joint action of thirty (30) school officers to provide a basis for a uniform classification of the pupils of a single township.

Such is the governmental machinery which manages the affairs of the district schools of Michigan, and such are some of the obstacles in the way of the proper grading and the efficient supervision of these schools.

5. This brings us naturally to another branch of our subject, and to the question, can anything be done to improve the present condition of matters? And if so, what?

I am not so vain as to suppose that I can suggest a solution of this problem which will prove satisfactory to any considerable number of those who alone have power to make and mend or mar our school laws. Such vanity could be looked for only in a mind upon which age and experience had not produced their legitimate results. Nevertheless I will, without unnecessary circumlocution and without delaying to fortify my position with arguments, state what seems to me, under existing circumstances, the most feasible thing to be done.

The county board of examiners and the chairmen of the township boards of school inspectors, in each county, are now required by law to hold each year a joint meeting for the purpose of advising and consulting with reference to the schools and teachers under their charge.

This body is large enough to be representative, and not so large as to prevent careful deliberation. The authority to prepare and adopt courses of study, under such restrictions as might be deemed necessary, for the district schools of the county might be granted to this body. By doing this no new educational machinery would be required, no offices would be created, and no additional expense would be incurred. At present these county and township officers have the authority to consult, to advise, and to recommend. It only remains to clothe them with power to require and direct. The additional authority conferred upon them should, in my judgment, be confined, for the present at least, to prescribing and arranging the studies and making all necessary provisions for grading, keeping up records, etc. A county uniform-

ity of text-books may be very desirable, and the body to which reference has been made would naturally enough have that matter in charge. I am confident, however, that it will be the part of practical wisdom to keep the two things separate, and to concentrate all effort in one direction. Such a course would excite less antagonism, and would give the proposed reform a much better chance of success.

6. Organizations and arrangements of one or two other States. It has sometimes been regarded as little less than high treason even to intimate that, in any respect, the school system and laws of Michigan were inferior to the systems and laws of some other States. Proper State pride is the cardinal virtue, as is also a due degree of family pride. Either, when it becomes overweening, justly exposes him who exhibits it to ridicule, if not contempt. I would no sooner disparage the excellencies of my adopted State than I would defame the reputation of a foster mother. But where one has so much that courts comparison and challenges admiration, there is no humiliation in freely acknowledging any superior excellencies belonging to a neighbor or friend, and in copying them as far as circumstances permit.

Impressed with this idea I have taken some pains, while preparing this paper, to make myself acquainted, by correspondence and otherwise, with those parts of the school systems of several other States which I thought might possibly suggest something to our advantage in the management of district schools. My limited examination justifies the statement that only a few of our neighbors have anything that need excite envy, or which is worth borrowing and adopting. To this general statement there are two or three exceptions. One State has a plan of county organization and another a plan of township organization, both of which present points of excellency worthy of study, if not of imitation. A brief outline of each is all that time will allow. It is hardly necessary to say, parenthetically, that one is a western and the other an eastern State. The town is the natural unit of organization in the extreme east, as the county seems to be in the west. A combination of both, with some slight modifications, would afford the ideal system.

I. The County Plan. This system embraces: (1) A County Board of Education. This board is composed of a county Superintendent and one officer called a trustee, from each township, together with the presidents, or chairmen, of city and village Boards of Education. This board has general charge of the schools of the county, except in the cities; prescribes text-books, courses of studies, and decides in respect to the purchase of furniture, maps, charts, etc.

The superintendent is required to examine teachers; to visit all the schools of the county; to see that the schools are properly classified and graded and that the rules and regulations of the board are faithfully carried out. He has also reports to make, institutes to provide for, and various other duties which need not be enumerated here.

The authority of this county board and its executive officer, the Superintendent, is such as to render it possible to grade the district schools of the county and to give a good degree of uniformity and efficiency to their work.

(2) The township trustees have especial charge of all the educational interests of the township. They build or provide school-houses; employ and pay teachers; are expected to visit the schools at least once in each month, and to take care that the rules of the county board are properly observed by pupils and teachers.

(3) The district director, under the oversight of the township trustee, has charge of the school-house and other school property of his district; makes temporary repairs, provides fuel, visits the school, etc.

Such is a brief outline of a system which makes the county the unit of organization, and aims to produce all practicable uniformity in school work in all the townships and districts.

II. The Town or Township Plan. The oldest eastern States know towns, but not townships. They have town organizations and meetings, but never designate these as township matters. The town there means essentially what township does here, a certain extent of territory. Town with us means what village does there, a tolerably compact settlement of moderate size.

This explanation is, of course, unnecessary for those who wore "born and bred" in those States, but may prevent confusion in the minds of some whose attention has never been called to this peculiarity of different States.

The commonwealth to which I am referring for an illustration of what we may, for our own better understanding, call the township plan, put this section in one of its recently enacted laws: "The school district system in this commonwealth is hereby abolished." It may increase our faith in the possibility of securing such an enactment in our own good commonwealth, at some time in the future, if we bear in mind that this final act was reached by slow and gradual approaches. At first, a considerable number of years ago, townships were, by law, *permitted* to abolish their school districts, later they were *encouraged* to do so; and, finally, the few which neglected to take advantage of permission and encouragement, were required to wipe out these worse than useless sub-divisions of territory and authority. Under this plan the township locates, builds, and keeps in repair all the school-houses within its limits.

The general charge and superintendence of the schools are placed in the hands of a committee, or board, consisting of any number divisible by three. This committee examines and grants certificates to teachers; selects and employs teachers for all the schools, unless the town directs otherwise by special vote, and supervises their work. The committee also prescribes courses of study, and directs what books shall be used. It has authority to arrange, classify, and distribute pupils in the schools in such manner as seems best for their general proficiency and welfare.

The school law of the State which has this town system, provides that "every town *may*, and every town containing five hundred families or householders *shall* maintain a high-school during ten months of each year, for the benefit of all inhabitants of the town." Two adjacent towns, having each less than five hundred families, may unite to establish a high-school open, on equal terms, to all the children of both towns.

This plan makes, practically, every township a single school district, with all the advantages of a full system of graded schools provided for every child. School privileges are absolutely equal throughout the whole extent of territory, with the single but unavoidable exception of the difference in distance to be traveled to reach the central high-school.

A combination of the county system of examinations and supervision with the township district system of grading and classification, seems to offer an almost ideal system for the organization and management of our own common district school.

It would apparently solve, in a satisfactory manner, the problem of grading and supervising the rural district schools.

The impression is very strong in my own mind that the immediate and imperative work of this Association, and of all the friends of good primary instruction, lies in this direction. The desired end can not be reached by a single effort, or at one bound. But it is not, certainly, too much to believe that a beginning may be made at once.

Michigan thinks well of herself, and estimates, at their par value, her organizations and methods; but I am sure we are not hopelessly joined to home-made idols, or wedded to the worse when a better is within our reach. May we not, with reasonable expectation of success, ask of the next Legislature an act *permitting* all, or any number, of the districts of a township to unite and establish a full system of graded schools if they so determine by a two-thirds vote? The asking could do no harm, and might, at least, prepare the way for future, if not immediate success. So much once obtained, time, perseverance, and wisely directed labor would bring all the rest.

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